TEXTILE BULLETIN

VOL. 60 JUNE 15, 1941 NO. 8

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VERYBEST
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SINCE 1869

Jacobs Reinforced Verybest Lug Straps

With Plug

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Made in ¼" and
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MULTIPLE PLYED, EXTRA STAPLE, HEAT RESISTANT, STRETCHLESS YARN forms heavy duty wearing surface

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THE FLOATING CHECK STRAP

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INSURES { 12½% More Wearing Surface More Gradual Checking
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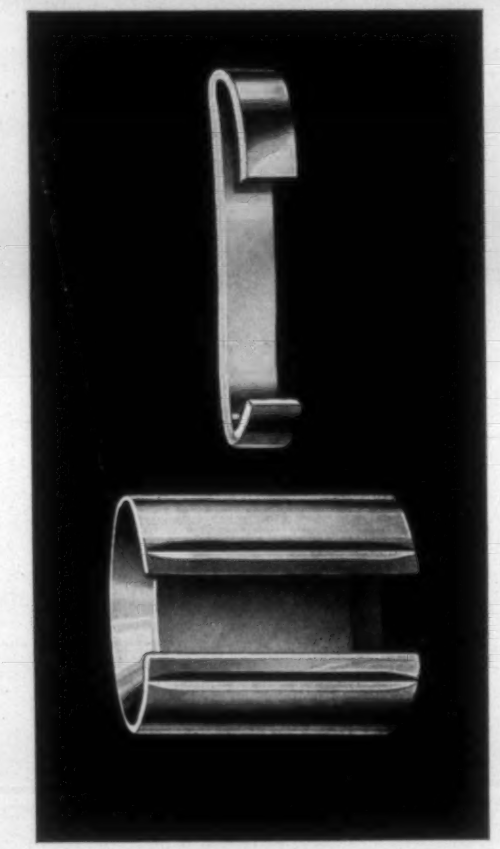
A Traveler for Every Fibre



The Bowen Patented Bevel Edge feature of U. S. Ring Travelers produces ideally smooth, even yarn. There are no angular edges to flatten the end. There are no split ends in throwing rayon and silks—no fly waste in the spinning and twisting of cotton, worsted, asbestos, kindred fibres. Made and stocked in all sizes and weights, for all kinds and counts of yarns.

STEP UP Your Production with U. S. Travelers

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Write for samples and prices

U. S. RING TRAVELERS
Sold under the Trade Names

- BOWEN Round Point Travelers
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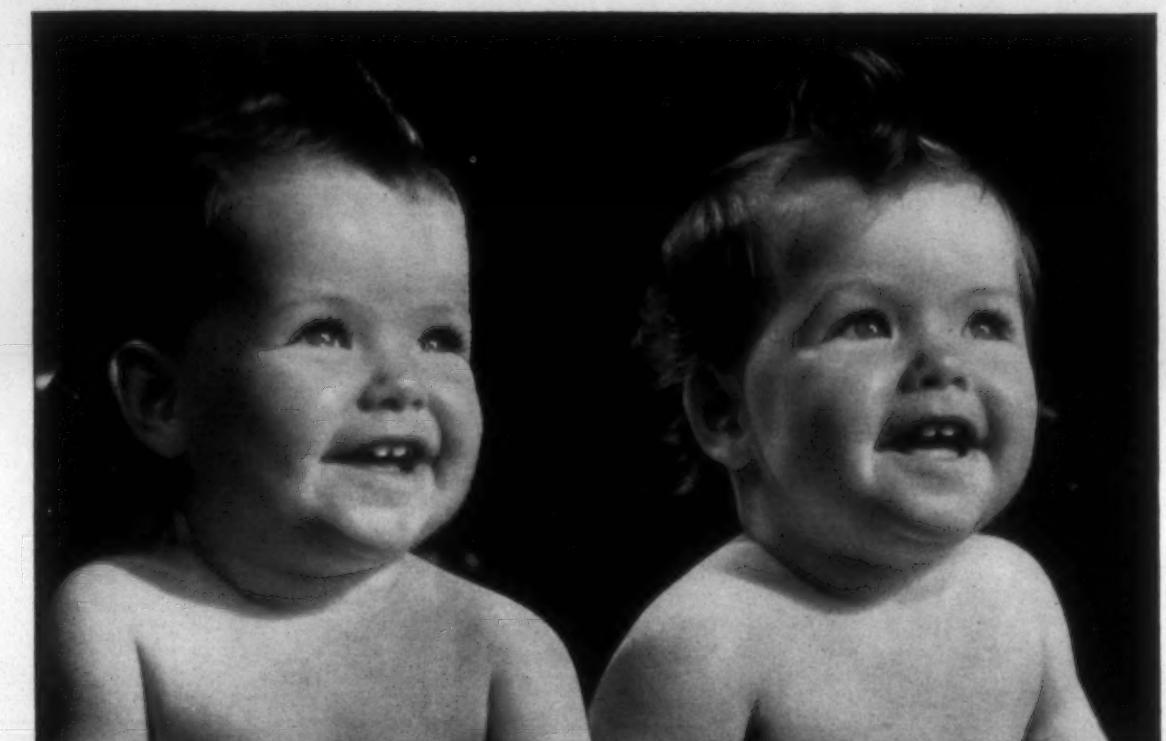
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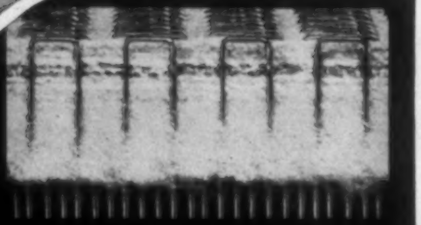
CARD CLOTHING

Pays! in long, trouble free, high quality carding. **Saves!** in grinding costs. The secret is in the combination of the two patented Tuffer features. Study them carefully and you will know why boss carders say—"now we get better carding at lower cost."

Inspect your card clothing now! Is it worn? Need replacement? Call in your Howard Bros. representative. He will appreciate your business and show it by quick, careful service.



"TUFFERIZING" PROCESS

An exclusive Howard Bros. patented-precision-process, makes every wire staple seat squarely, flat, and firmly into the famous, TUFFER foundation. All wires are even in length, spaced uniformly and perfectly parallel at all times. Each staple cut clean, sharp, smooth and free from wire burrs. Uniformity impossible to get any other way.

TUFFER (PATENTED) FOUNDATION

is made of carefully selected and specially constructed cloths for our own particular use. Tested to be several times necessary strength, TUFFER foundation is "cushioned" just right to make the wire shock-proof to the constant hammering of the various stocks carded.

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1866
OUR 75th YEAR
1941

PRODUCTS: *Card Clothing for Woolen, Worsted, Cotton, Asbestos, and Silk Cards • Napper Clothing, Brush Clothing, Strickles, Emery Fillets. Top Flats Recovered and extra sets loaned at all plants • Lickerins and Garnett Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant • Midgley Patented, and Howard's Special Hand Stripping Cards • Inserted-Eye and Regular Wire Heddles.*

TIGHT BINDING

NEW AMERICAN VISCOSE PLANT AT

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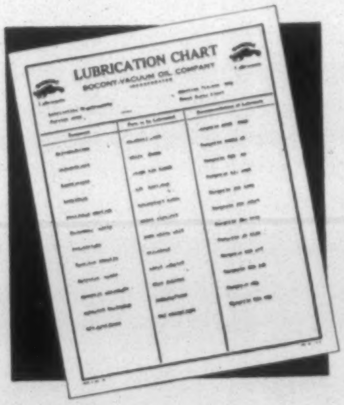
100% Gargoyl L

ACRES OF GLEAMING NEW MACHINERY... a capacity of 50,000,000 lbs. per year! The new American Viscose Plant at Front Royal, Va., is the largest and most modern viscose rayon producing plant in America.

And every machine is lubricated with Gargoyle Lubricants—as recommended by Socony-Vacuum engineers!

This fact is significant. For the same experience that works to give American Viscose complete lubrication protection—will work to help your plant reduce costs.



SOCONY-VACUUM CHARTS ← GUIDE OPERATORS

In the new American Viscose Plant—Socony-Vacuum charts are posted by machines. They eliminate confusion from verbal instructions; list the Gargoyle Lubricant for each machine, and the exact way it should be applied.

SOCONY-VACUUM OIL CO., INC. • Standard Oil of New York Div. • White Star Div. • Lubrite Div. • Chicago Div. • White Eagle Div. • Wadhams Div. Baltimore Div. • Magnolia Petroleum Co. • General Petroleum Corp. of Calif

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D. T.
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AT FRONT ROYAL, VA.

Rayon Plant Lubricated!

THESE TURBINES, lubricated by Gargoyle D. T. E. Oils, power the American Viscose Plant. Together they form one of the largest industrial power plants in the South.

GARGOYLE

Lubricants

"Correct Lubrication"

Du Pont vat colors for printing

PRODUCE SHADES OF OUTSTANDING FASTNESS AND BEAUTY

ADVANCES in styling and design—ultra-modern processing techniques—the use of fast vat colors—have been largely responsible for the present high degree of perfection in the art of textile printing.

The Du Pont Company has been manufacturing vat colors since 1917. It offers the printer quality dyes possessing great brilliance combined with maximum fastness. This is possible through the refinement of chemical manufacturing processes resulting in greater purity of color and the necessary physical properties to assure the best results. Du Pont vat colors are finely divided, free from grit, specking and foaming.

Du Pont offers a comprehensive range sold under the registered trade-marks of:

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"PONSOL" .... *anthraquinone type*

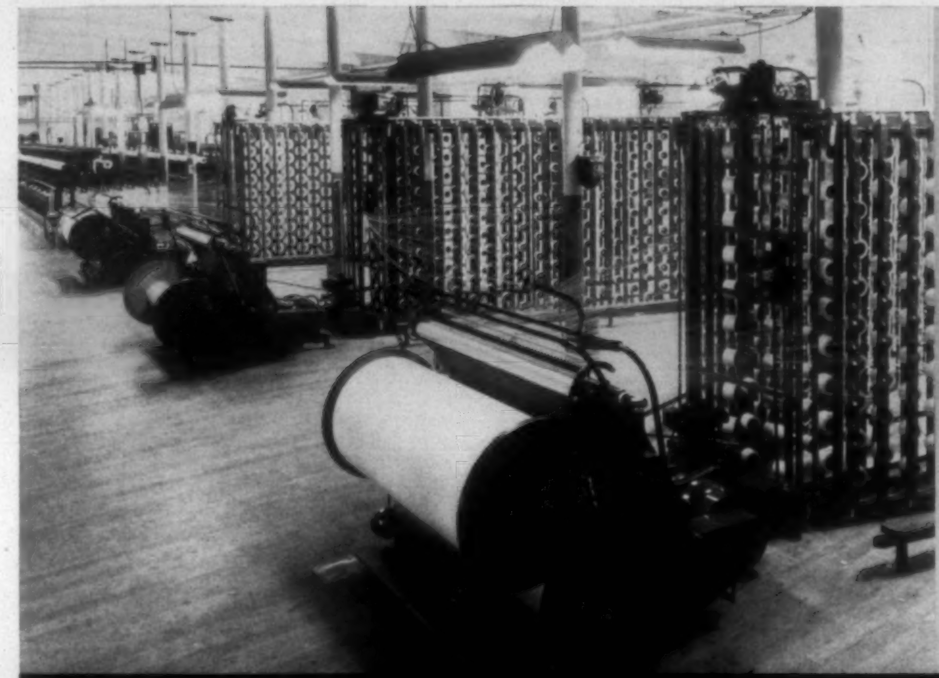
"LEUCOSOL" .... *anthraquinone type possessing advantageous printing characteristics*

The LEUCOSOL colors are particularly suited to textile printing. Improved solubility of the leuco compounds makes brighter, cleaner, prints possible. Very good penetration insures the best possible fastness. Physical characteristics are designed to obtain optimum results. The pastes do not dry out or settle, thus eliminating speckiness. These types are recommended where the fastest anthraquinone vat colors are required.

For quality in color . . . there is nothing finer than a vat dye!

DU PONT DYESTUFFS
REG. U.S. PAT. OFF.

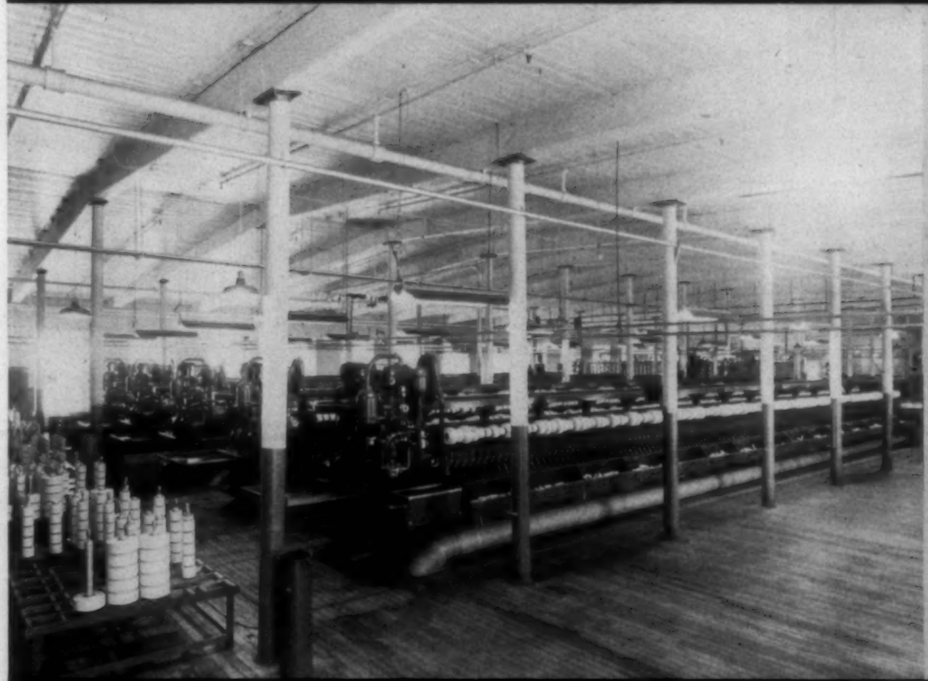
E. I. DU PONT DE NEMOURS & COMPANY (INC.)
Organic Chemicals Dept., Dyestuffs Division, Wilmington, Delaware



SUPER-SPEED WARPERS

NEW MACHINES for NEW ENGLAND

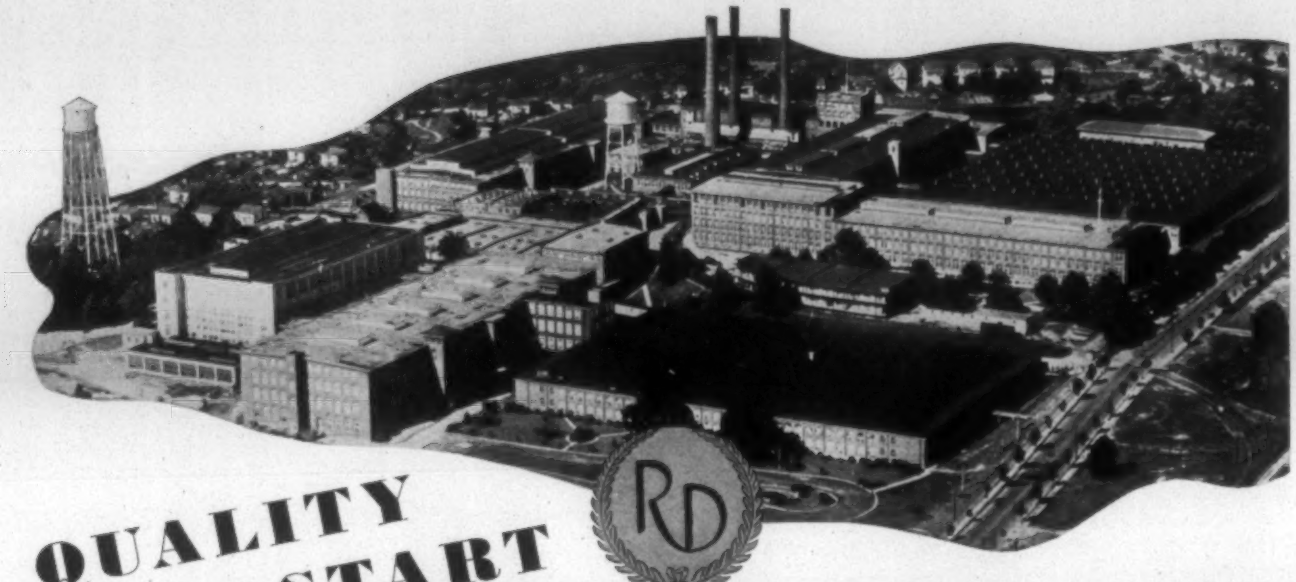
The Barber-Colman System of Spooling and Warping



These pictures were made in one of TWELVE NEW ENGLAND MILLS, all manufacturing fine goods, which have recently installed Barber-Colman Spooling and Warping equipment.

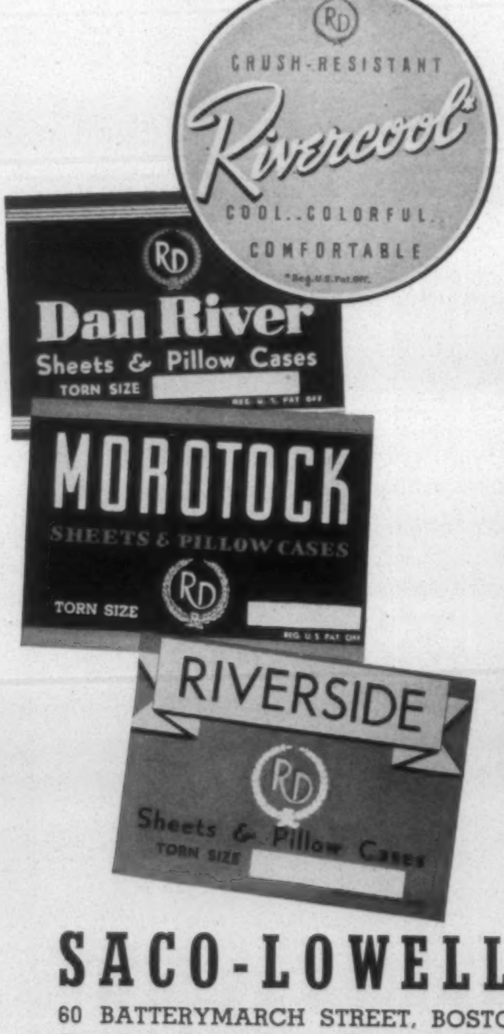
AUTOMATIC SPOOLERS

BARBER-COLMAN COMPANY
ROCKFORD, ILLINOIS, U. S. A.
FRAMINGHAM, MASS., U. S. A. • GREENVILLE, S. C., U. S. A. • MANCHESTER, ENGLAND • MUNICH, GERMANY



QUALITY from START to FINISH

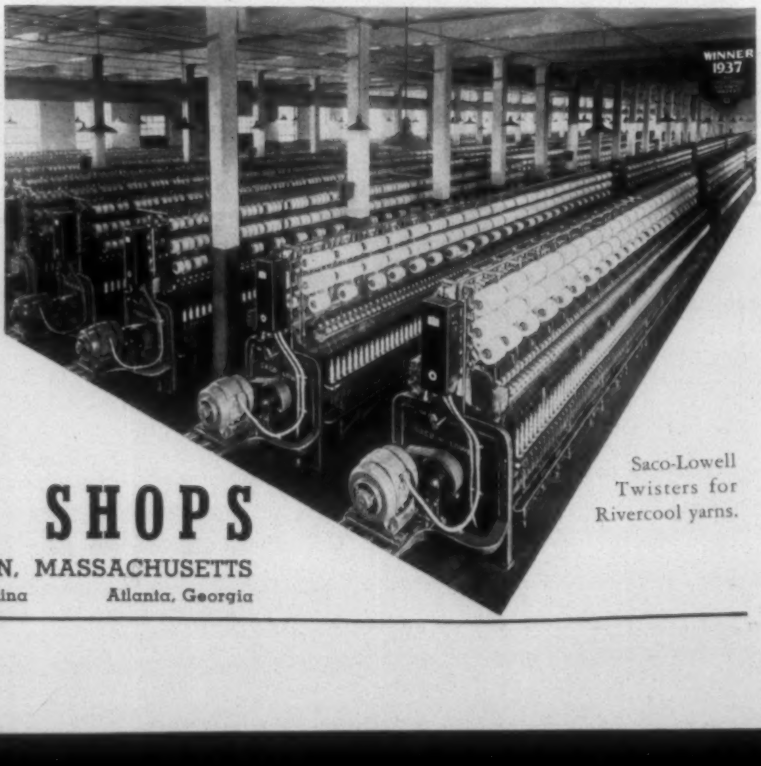
. . . THE YARNS USED IN THIS FAMOUS LINE OF FINE FABRICS ARE MADE ON SACO-LOWELL MACHINERY.



The fabrics bearing these labels are nationally known for their outstanding value and quality . . . and every single step in their manufacture is planned for *"quality from start to finish."*

It is significant that the many diversified products manufactured by Riverside and Dan River Mills are made from yarns processed on Saco-Lowell equipment. In this world-famous mill Saco-Lowell openers and pickers, cards, drawing and roving frames, spinning and twisting frames, warpers and slashers are used extensively.

For Dan River, like many other mills in this country and abroad, Saco-Lowell equipment is a sound and profitable investment, safe-guarding the high quality and reputation of the finished merchandise. Even though your mill may not be as large as Dan River, it, too, can profit through the use of Saco-Lowell equipment.



Saco-Lowell
Twisters for
Rivercool yarns.

SACO-LOWELL SHOPS

60 BATTERYMARCH STREET, BOSTON, MASSACHUSETTS
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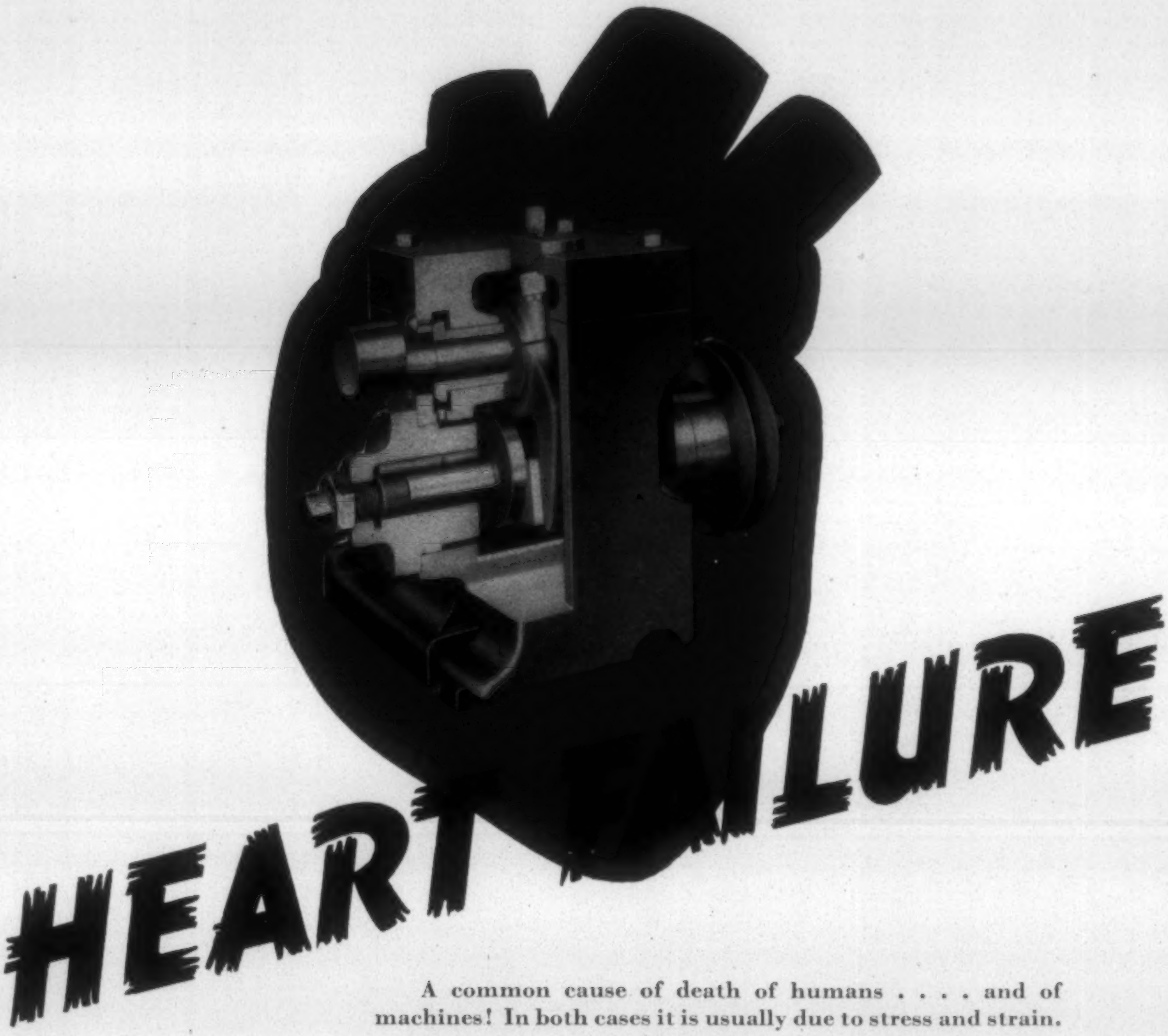


A common cause of death of humans . . . . and of machines! In both cases it is usually due to stress and strain.

For example, the comb box of a carding machine where improper lubrication for only a few hours ruins the "heart" of the machine.

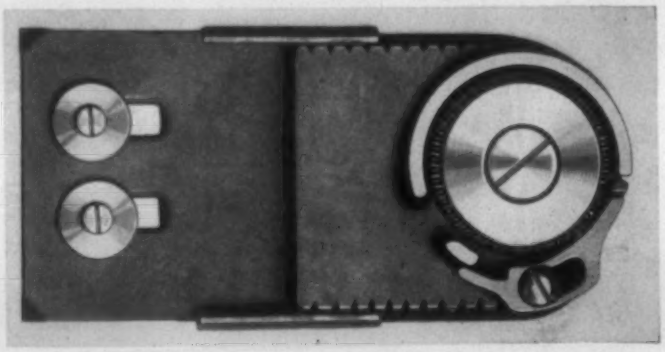
The prevention? A lubricant which does not allow the level to fall rapidly, keeps parts well coated and temperatures down, protecting metal surfaces.

Houghton's STA-PUT Lubricants in comb boxes will prolong life and keep machines on the job, running cooler and longer without breakdown. These lubricants are so named because of their "stay-put" properties, film strength and remarkable adhesion to metal surfaces.

Ask the Houghton Man how you can keep your machines in the pink of condition at low cost.

E. F. HOUGHTON & CO.
PHILADELPHIA and CHARLOTTE

Houghton's
STA-PUT LUBRICANTS



Original "Self-moving"
Temple Invented By
Ira Draper
Enabling One Weaver to Run
Two Looms Instead of One
June, 1816

June, 1816 - June, 1941

125 YEARS EXPERIENCE

Designing and Building Improved Textile Machinery Has Been the Guiding Star of Draper Business Since 1816.

Throughout this period, Draper developments have contributed much to the growth of the American textile Industry. The value of these developments to the mills is reflected in the growth of our plant from its humble beginning to the enormous facilities now required to serve your needs.

Our desire for the future is to serve the textile industry by designing and building still better textile machinery.

Assembly and Erecting Shop 1941

First Draper Shop in Hopedale 1841

DRAPER CORPORATION

Hopedale Massachusetts
Atlanta Georgia Spartanburg S C

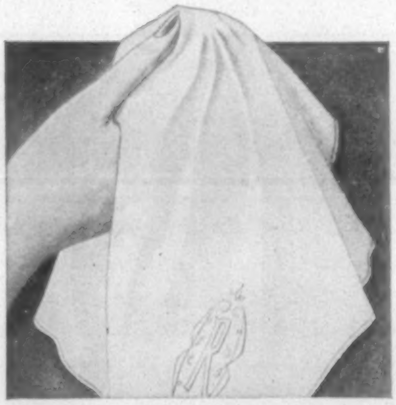
A MILLION MOISTENED FINGER TIPS WILL MAKE THIS TEST!

New linen-like textures in Crown Tested Spun Rayon Fabrics drink up water like a sponge*

. . .

You'll be amazed when you see how absorptive these new spun rayon fabrics can be. Give them the finger-tip test, or douse them with water. Actual tests show that they absorb more water than linens of comparable weight and quality.

This fact should have double-barreled importance to you. It's an indication of the versatility of spun rayon fabrics. Properly woven, dyed, and finished, they can be made to meet virtually any requirement.



It means further that you are protected against the possible effects of a linen shortage. If you are connected in any way with the production or distribution of tablecloths, napkins, towels, handkerchiefs, or scarfs involving linen, it will pay you to investigate what spun rayon can do for these products. Write today for complete facts.

Facts about the linen-like textures in Crown Tested Spun Rayon Fabrics

1. ***Highly absorbent.*** Handkerchiefs recently tested 36% more absorbent than linen.
2. ***Washable.*** Tablecloth showed no sign of wear after three months' commercial launderings.
3. ***Fast colors.*** The spun rayon fabrics are not subject to crocking.
4. ***Serviceable.*** Proved by millions of yards of these fabrics which have gone into dresses and sports apparel.
5. ***Permanent whiteness.*** These fabrics stay really white. No tendency to yellow with age.
6. ***Lint-free.*** Suitable for cleaning eye-glasses, the best test of lint freedom.

*Reg. U. S. Pat. Off. Copr. 1941—American Viscose Corp.

AMERICAN VISCOSE CORPORATION

350 Fifth Ave., New York City

WORLD'S LARGEST PRODUCER OF RAYON YARN

CROWN TESTED AND APPROVED RAYON FABRIC
TRADE MARK REG. U.S. PAT. OFF.

Sales Offices: New York, N. Y.; Charlotte, N. C.; Providence, R. I.; Philadelphia, Pa.

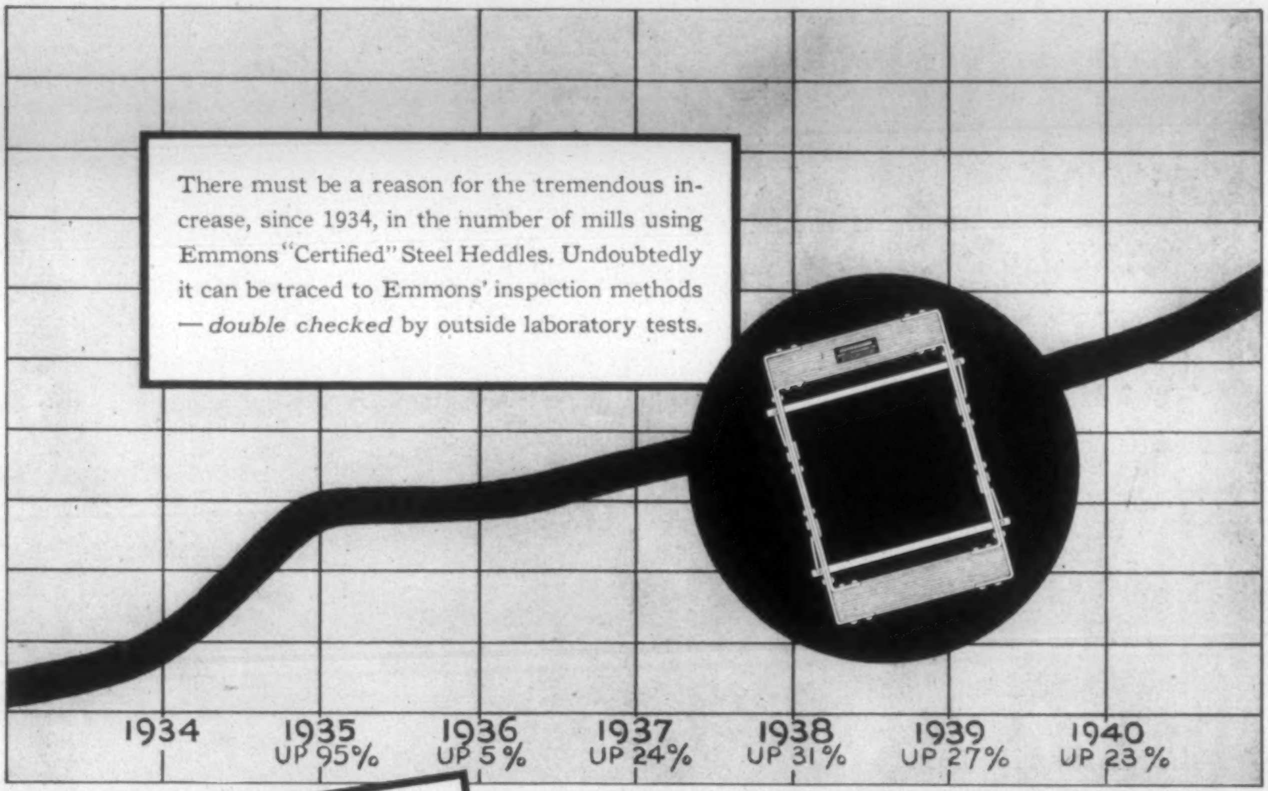
. . .

Plants at: Marcus Hook, Pa.; Roanoke, Va.; Lewistown, Pa.; Parkersburg, W. Va.; Nitro, W. Va.; Meadville, Pa.; Front Royal, Va.

THIS RISING CURVE OF CONFIDENCE

IN EMMONS PRODUCTS

MEANS *MORE SECURITY* FOR YOUR MILL



There must be a reason for the tremendous increase, since 1934, in the number of mills using Emmons "Certified" Steel Heddles. Undoubtedly it can be traced to Emmons' inspection methods — *double checked* by outside laboratory tests.

Wider Representation Follows Increasing Sales — Immediate Service from these Experienced Emmons Salesmen:

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ARTHUR HARRIS: Box 1982, Atlanta, Ga. Tel. Main 2643

ALVIN BRALEY: Box 236, Itasca, Texas Tel. 170

W. S. TAYLOR: 171 Madison Ave., New York City. Tel. Lex. 2-6060

Like all Emmons products, Emmons Heddle Frames undergo rigid inspection before being put to work in your mill. Weavers like to work with these frames. Maintenance men appreciate their lasting rigidity, the carefully-smoothed handpicked lumber, and the 2 coats of shellac that keep them in condition. The "Inspected and Approved" seal means Emmons precision workmanship throughout.

WAREHOUSE STOCKS: Emmons products, including standard sizes of flat heddles, are stocked in Charlotte and Atlanta. Emmons "Multiple Yarn Space" Reeds manufactured in Charlotte.

Get the most out of your loom harness equipment by writing — today — for our catalog describing Emmons products.

Emmons Loom Harness Company
Lawrence, Mass.

Please send me your booklet of loom harness equipment.

NAME..

COMPANY..

ADDRESS..

EMMONS

LOOM HARNESS COMPANY
LAWRENCE, MASS. . . . CHARLOTTE, N. C.

TEXTILE BULLETIN

MEMBER AUDIT BUREAU OF CIRCULATIONS

Vol. 60 June 15, 1941 No. 8

Development of the Rayon Industry from the Viewpoint of the Practical Mill Man*

By Irvin Lewin, Manager

Carter Fabrics, Inc.

MY remarks this afternoon will be an attempt to trace briefly the development of the rayon industry from its inception down to the present day, describing a few of the problems that presented themselves to the fabric manufacturers, without attempting to go into the technical problems of the production of the thread. Of course, you realize yarn and machinery had to keep pace with the better perfection and greater accomplishments of weaving to attain a proper degree of perfection, variety, and cost, as well as style and beauty in the finished product. Many of us are prone to refer to the "good old days" of the textile business. This perhaps is a pardonable, and I may say pleasureable, pastime for we old-timers of 35 or 40 years ago when weavers ran two looms, when all fine goods were silk, and when everything was yarn dyed which required a complicated process of throwing, tin weighting, and dyeing, to turn out merchantable wanted fabrics to satisfy the style demand of the day.

Those were the days even before the piece dyed raw silk business had come into vogue, the so-called "good old days" when weavers and everyone else in the mill took a deep pride in their background and ability to perform each operation, when weavers would examine every yard of their own production before delivering it to the cloth room, and then lay it down in the cloth room with as much pride as a painter would deliver his masterpiece to the critic for final approval. That was long before the high speed methods of today when profits were long, production was slow, pickage was high and the small volume of goods was often disposed of in good fellowship over the bar, in contrast to the volume production of this era.

In those days there were hundreds of small weave shops with from 6 to 40 looms. In the early part of the century between 1900 and 1905, silk piece dyed goods, or in other words, goods which were dyed after weaving, came strongly into vogue. They did not, of course, entirely supplant the yarn dyed silk fabrics but they did make serious inroads because they found a definite place in the outerwear and inner-wear fields on account of their cheaper price, softness, drape, and luster. All this existed before anyone had a thought of or knew anything about putting rayon into commercial use.

I remember the first rayon skeins shown more as a curiosity than anything else. They were examined with interest and introduced to us by the name of "Wood silk" or "Artificial silk,"a misnomer, which, from its inception created prejudice and doubt. It was not until a number of years later that the trade adopted the name "Rayon" in an effort to dissipate the prejudice, doubt, and criticism to which this man-made fibre was subjected. The first size introduced was 150 denier and contained 18 filaments. It looked almost like glass, having a false shiny luster, and had a hand like straw. It could not be dyed or wound commercially and I recall vividly the early experiments with this crude product. We could depend definitely on dyed skeins in any color having eight or ten shades in the same skein and once it was dyed I recall costs of a dollar to a dollar and a half per pound to wind it. I can see before me now the girls trying to handle four ends resulting in tangled and broken filaments, knots every few yards and once we did get it onto spools, it could not be woven. Many early experiments were made by dipping the skein into a solution of glue and oils to try to give it an adhesive coating to insure possible weaving. During these days of dilemma, doubt, uncertainty and lack of knowledge on both the part of the rayon producer and the rayon cloth producer, I think that we should refer to that period of the rayon industry as the "bad old days" rather than the "good old days."

The first common use to which the filament rayon thread was put was almost entirely for decorative purposes, a single or double end spaced in the warp and occasionally a filling stripe of a single or double end, because to attempt during the first year or two to put it into a solid fabric would have meant a harsh unevenly dyed streaky and imperfect, unmerchantable fabric. Gradually, however, slightly improved yarns came to us, as problems were gradually surmounted, but it was not until five or six years later, around 1913, that the first volume cloths were produced in solid rayon fabrics. During this interval we had only bright yarn, no one had yet perfected any of the semi-dull, and pigment yarns, or multiple filaments. A few experiments were going on, trying to use a higher number of finer filaments but these were purely experimental. No one knew anything about slashing, and there were few dyestuffs that would dye rayon and the range of colors was limited.

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*Talk made at the recent Rayon Symposium conducted at the Textile School at North Carolina State College.

Early Rayon Cloths

About this time, approximately the year 1913, one of the first volume numbers, as I recall it, was the famous Baronet Satin. It was a piece dyed affair made of 150 denier warp in a five-shaft satin construction with 60/2 cotton filling. I well recall the names of the Duplan Silk Corp. and Cedar Cliff Silk Mills who made it in those days and became famous. Duplan Silk Mills and Cedar Cliff Silk Mills were also the pioneers who made the first sizing machines of their own manufacture and successfully slashed and sized the warps. The first machine I ever saw had only one small roller of about 8″ diameter, which ran about two yards per minute and this machine was secreted under lock and key. Along about this time Charles Johnson built and marketed the first serviceable and practical machine. I do not recall the exact date but if my memory serves me right it was about about the year 1915, or about 26 years ago. I quote this only to impress you with the fact that rayon is a recent and comparatively new fibre and to point out the progress and advancement that has taken place in the last 25 years. About this same time, experiments were started with attempting to make this crude thread into a crepe yarn to imitate the famous and popular fabric of the day "crepe de chine"—we may look back and forget the heart-breaking experiments that were made, the failures and disappointments, before it was found out that only by soaking the skeins in certain gelatines, glues and oils could the yarn be made to crepe evenly and avoid cracking the face of the fabrics. The methods of soaking, temperatures, methods of mixing, proportions of oils and gelatins to vary the degree of pebble, were all closely guarded secrets for some years, but today these methods are all well known, and we forget those early pioneers who discovered these secrets. Slashing ingredients were something novel and vague. No one knew much about them. They were bought mostly prepared—two or three concerns supplied them and they came to us in buckets weighing 25 pounds each. Even with the first commercial three-cylinder slasher, speeds of 6 yards per minute were considered pretty good as compared with today's speeds of 50 and 55 yards a minute on similar fabrics. With the advent of the three-cylinder slasher came improvement in the yarn—we were able to run more than one loom per weaver. The looms, of course, were non-automatic as the automatic loom had not yet come into existence.

Early Rayon Goods Made On Silk Looms

It was a matter of natural consequence that the early rayon goods were made by the silk manufacturers. They had the slow speed equipment and the box looms to handle the delicate and brittle artificial silk of the day as well as the slow patient type of help, accustomed to the handling of such delicate yarn. Naturally a box loom laying picks alternately in the filling from two or more different shuttles would help minimize the uneven dyeing quality of the yarn. Many manufacturers, however, scoffed at the use of rayon through prejudice and lack of knowledge and it was only a few of the early pioneers who had forethought and vision and attempted its use.

Between 1916 and 1920 use of rayon actually started to come into vogue and be accepted by the public and the advancement between 1920 and 1940 has been nothing short of miraculous. We saw during that period the development of style fabrics of richness and mellow bloom that touched the palate of old Dame Fashion. We saw the advent of softer, mellower yarns with filaments no longer running 8 deniers in weight but we gradually saw them drop to 6, 4, 2, and today for certain uses we have yarn of 100/100 and 150/150 which means that each filament is of one denier weight which gives that softness and mellowness which was unattainable in the coarser filament yarns and which lend themselves so beautifully to the hand and drape desired today. Many of us do not realize the miraculous accomplishment of making a one denier filament. Have you ever stopped to think that there are approximately 4½ million yards per pound in a one denier filament and expressed in miles a single pound of this filament would reach 2,500 miles, or from here to San Francisco? Is it not further a miraculous engineering achievement and scientific accomplishment when we realize that our rayon spinners today can produce a one-pound package of 150/150 without a single knot or missing continuous filament?

From the standpoint of manufacturing the thread into a useful and merchantable fabric to be sold at a competitive price, you young men who contemplate entering the rayon industry need realize that there are but two fundamentals that lead to success. They are two simple words but they will occupy the rest of our lives to master them and they are the by-words, the Bible and ambition of we, who have spent our lives in the industry. The two words are "cost" and "perfection." "Perfection" is of course paramount but I think it carries no more dreaded meaning than the word "cost" because without either of them, failure is assured. To have one without the other will block success. To co-ordinate them means advancement and success. Let us review what has transpired in the past few years. The greatest element that has enabled us to reach a competitive cost and to put our product within reach of the consuming public has been substantially helped not only by methods and improvements in the yarn, but by machinery as well. It was not many years ago that throwing costs were 300% greater than today. Ten years is not a great period of time as we know it in terms of industrial development yet when we realize generally speaking that the throwing cost of 100 denier has dropped from approximately 60c per pound to 20c per pound in a short period of ten or twelve years, it will give you some idea of what has been accomplished. We have seen revised and automatic soaking, automatic truck dryers that handle 300 to 400 pounds per hour, high speed winding frames, designed to accommodate the ever-increasing perfection of the yarn. High speed warping with operators running a multiple number of frames and putting yarn into warps at a small fraction of a cent a pound. We have seen throwing increase from loads of 200 to 400 spindles per operator up to 4,000 and 4,500 spindles per operator, and all with no greater effort on the part of the employee, and even more commendable, an increase in the wages of the operators. We have seen the gradually climbing upward from 3 ounces per spool to 4, 5, 8 and nof at this writing the one-pound throwing knotless package is no longer a novelty or a secret. Labor and loads, larger packages, greater perfection, more scientific methods, higher speeds, are but part of the story.

Triple shift operation to increase production is just as fundamentally responsible for the decreased cost of production as anything else. Fixed burdens such as taxes, depreciation, power, supervision, and selling are but some of the items which run on regardless of the production and it is only by higher efficiency and maximum production that these fixed items of expense can be absorbed. As an example, within ten years I well recall such fabrics as the ever-popular acetate taffeta, Bemberg sheers, sharkskins, and other fabrics too numerous to mention that had a mill labor cost of from 12 to 13 cents per yard, including only the items of labor and fixed burdens. Modern mills today can manufacture these fabrics at costs ranging from 3 to 5 cents per yard, depending upon the pickage. When we consider that the costs of ten or twelve years ago were approximately 250 to 300% higher than they are today, it means much to the credit of the yarn producers, the machinery manufacturers, and the weavers of cloth. Of course, all problems eventually from the manufacturing standpoint are laid in the lap of the cloth manufacturer. The yarn producer does not weave his yarn—it is sent to us; neither does the mahinery manufacturer have to run his own winders, spinners, warping machines, and looms. It is up to us to help develop and co-ordinate our problems with the sources of supply to meet the needs and demands for competitive costs and better perfection. We have seen within 12 years the devolpment of the shuttle change loom and we are now on the brink of another new era with the development of the new S-5 loom which is a further step in the development of more modern weaving. Ten or twelve years ago the old non-automatic loom was running at 4 and 6 looms per weaver but with the advent of the shuttle change loom which started out with 8 looms per weaver and has slowly crept up to 12, 16, 24, and 32, and some mills now run up to 48 per operator on plain single shuttle work. And now the S-5 bobbin change box loom is still a newer type of loom fast coming into development at even higher speeds and lower operating costs—all in an effort to bring down costs further and further, and to put our fabrics within the reach of more and more people. We have seen better built machinery, larger packages, higher speeds, lowered overhead, all designed fundamentally to bring down the elements of cost. Ten or twelve years ago 72 to 76% efficiency and single or double shift operation was common practice in the trade. Today we reach efficiencies in excess of 95 with speeds ever increasing and with every allied operation trying to keep pace with the demand for lower and lower costs and greater perfection.

With all the above comes another evolution. With the improvement in machinery and yarns, new transitions take place that injure one branch of the industry and benefit another. A fair example of this is sharkskins, Bemberg sheers, and acetate taffetas, and I quote these only because they are a few of the large volume cloths. Ten years ago these fabrics were made exclusively on box looms because with the multiple shuttle and slightly slower speed we could turn out a more evenly woven and better fabric as well as one that could be dyed more satisfactorily. With the improvement in yarns and better dyestuffs, as well as new ideas to insure more even dyeing with better, faster, and more precise machinery, it did not take the alert manufacturer long to find out that these fabrics could now be made perfect enough to be acceptable to the market, on high speed single shuttle Draper looms, resulting in a further decrease in costs. Under this evolution these three major fabrics as well as many others have been practically lost to the box loom industry as they are no longer competitive. Upon these box looms therefore substantially falls the burden of finding new style fabrics that cannot be made on plain looms in order to keep their wheels turning. In the field of yarn development there is still much to be attained even with the high degree of perfection that exists today. We are already successfully weaving yarn of 45 and 55 deniers, and I daresay eventually it will be common practice to handle yarns of even finer denier. Much is yet to be accomplished in the development of high speed and larger package machinery and those manufacturers who cannot keep pace with the development of the times have a difficult road ahead of them.

Profits are no longer figured in cents but in fractions of cents per yard. Production of a million yards a week are not very uncommon. Savings in manufacturing become important when they reach the appar-

(*Continued on Page 52*)

S. C. Mill Men Discuss Carding, Spinning, Weaving

THE Spring Meeting of the South Carolina Division of the Southern Textile Association was held at the Drayton Mills Community House, Spartanburg, S. C., on Saturday, May 10, 1941, beginning at 10 o'clock. The Chairman, W. T. Morton, Overseer of Spinning at Monarch Mills, Union, S. C., presided.

A stenographic report of the meeting follows:

Chairman Morton: Mr. Splawn, who is the Chairman of Carding and Spinning, is not here, and I ask G. G. Simmons to come forward and lead the discussion on carding and spinning for us.

G. G. Simmons, Plant Supt., Drayton Mills, Spartanburg: Leading the discussion is not much of a job, because the questions are all here, and all I have to do is ask them. I am glad to do that service.

Our first question today under Carding is: *"What is your reaction to the use of a plow grinder on the card cylinder and doffer? Does the grooved emery fillet have any side grinding on card clothing? Which is the best number of fillet to use?"* Let's take up the first part of that. What do you think about the use of a plow grinder on the card cylinder and doffer?

R. T. Stutts, Simpsonville: I would suggest asking who is using the plow-grinder system or who has used it.

Mr. Simmons: All right, let's have a show of hands by all who have had any experience with the plow grinder. Have you used it, Mr. Stutts?

Mr. Stutts: No, sir.

Mr. Simmons: Mr. Lockman, you are the only one who raised your hand. Will you tell us whether you like the plow grinder and what it does and what it does not do?

Frank D. Lockman, Supt., Monarch Mills, Lockhart: As I understand it, that is the grooved fillet. Is that right?

Mr. Stutts: No. The plow grinder is a device to grind the teeth down on the sides.

Mr. Lockman: Isn't the grooved fillet supposed to grind on the sides?

Mr. Simmons: I don't know.

Mr. Lockman: I am sorry, but I have not had any experience with that kind of grinder.

Mr. Simmons: I imagine someone sent in that question, and if anyone here can give any information on this matter we should like to have him do so. It seems that no one is familiar with the plow grinder.

The next part of that question relates to something with which you are familiar, I imagine, Mr. Lockman: *"Does the grooved emery fillet have any side grinding on card clothing?"*

Mr. Lockman: Since I am not a carder I do not know so very much about it, but our overseer of carding has used about 2,000 feet of it and he reports it is an improvement over the flat-faced fillet. He thinks he gets some improvement in the grinding of the card teeth from using this fillet.

Mr. Simmons: I am not familiar with it. How deep are the grooves?

Mr. Lockman: About 1/32".

Mr. Simmons: And how wide are they?

Mr. Lockman: I would say they are around 1/8"

Mr. Simmons: Has anybody else had any experience with this grooved emery?

T. M. McNeill, Supt., Monarch and Ottaray Plants, Monarch Mills, Union: I believe this grooved emery is the original conventional type of emery that has been in use for many, many years. Then they moved away from it to the flat-surface emery. Now they are getting away from that, in turn, and going back to the grooved emery, which gives you a plow-pointed wire.

Mr. Simmons: If there is nothing further on that, the next question is: *"Which is the best number of fillet to use?"*

Mr. Lockman: We found that No. 24 is the best number to use. We have used several others.

Mr. Simmons: How many wires?

Mr. Lockman: 100 on the cylinder and doffer and 110 on the flats.

Mr. Simmons: And the No. 24 emery fillet is the one you like best?

Mr. Lockman: That is right.

Mr. Simmons: Somebody else that is running that same wire tell us if you agree with that. Is that the number of emery fillet that you like best? How many boss carders have we here? (Several hands raised.) We have several present. What fillet do you use?

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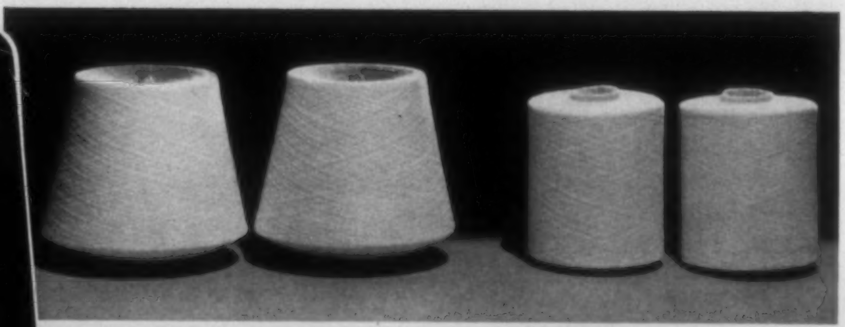

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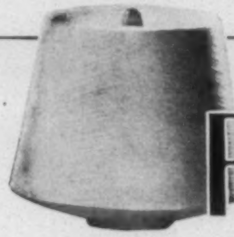

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Chester: I use No. 30 fillet on 100s wire. We have 110 on the doffer and the flats.

John M. Snoddy, Carder and Spinner, Marion Mfg. Co., Marion, N. C.: I use No. 30 on 110 wire.

Mr. Simmons: Is that the ordinary flat fillet or is it this grooved fillet?

Mr. Snoddy: The ordinary flat fillet.

Mr. Simmons: Bob, what about you?

Mr. Stutts: We use 30, ordinarily.

Increasing Weight of Sliver in Can

Mr. Simmons: Let's take up the second question. *"Have you increased the weight of the sliver in your cans at the cards or drawing by the following methods: First, inserting a tube in the coiler tube; second, compression springs on the calender roll; third, reversing the direction of the can, all other parts being left the same as before?"*

There are three ways of getting more sliver in the can, and we ought to get some discussion out of that. What success have you had with any of those methods? Has anybody tried any of them? The first one named is inserting a tube in the coiler tube. What is that for—to condense the size of the sliver?

Mr. Lockman: That is right.

Mr. Simmons: Has anybody tried that?

Mr. Lockman: We have.

Mr. Simmons: Does it work?

Mr. Lockman: It is working.

Mr. Simmons: Tell us about it.

Mr. Lockman: We did it by putting compression springs on the calender roll and increased the amount of weight in our can by 30 per cent.

Mr. Simmons: You put the springs on the calender roll in front of the card?

Mr. Lockman: That is right.

Mr. Simmons: Did you put a tube in?

Mr. Lockman: We have not tried that. We tried reversing the direction of the can, but we did not get anywhere with that. But we have been running the compression springs for a year now on our entire work, 153 cards.

Mr. Simmons: I remember that over at Clemson there was some discussion about this spring on the calender roll. At that time there seemed to be two definite schools of thought on it. Everybody agreed that it put more sliver in the can, and some thought it helped the breaking strength and some thought it did not. You have had a year's experience, Mr. Lockman, and I wonder if you can tell us anything about it.

Mr. Lockman: Well, we had quite a little bit to do besides putting the pressure on the calender roll. We found when we put the pressure on the calender roll our numbers ran lighter with the same weight of card lap. We found we were getting stretched sliver with the compression springs on the roll. So we had to go to work and turn down our coiler roll—the rolls in the coiler head. When we got those cut down so it would not stretch we thought we were getting better yarn.

Mr. Simmons: So you are sold on the springs on the calender roll?

Mr. Lockman: Yes, sir.

Mr. A.: We have tried it. Our breaking strength is not as good.

Mr. Simmons: Are you still using the springs?

Mr. A.: We are still using it; we are making a test on it, but so far we are losing about 5 per cent in breaking strength.

Mr. Simmons: To what do you attribute that loss? To stretched sliver, like Mr. Lockman's, or to something else?

Mr. A.: It does not draft out as well, I think.

Mr. Simmons: You are still experimenting with it?

Mr. A.: Yes, sir.

Mr. Lockman: I think it would be well to tell how much pressure was put on it.

Mr. A.: We increased the weight about 50 per cent. We used to run one hour and ten minutes and now run one hour and forty-five minutes.

Mr. Simmons: What weight sliver are you running?

Mr. A.: About 53.

Mr. Lockman: What percentage of compression?

Mr. A.: About 50 per cent.

Mr. Simmons: How does that compare with yours, Mr. Lockman?

Mr. Lockman: Well, he has 20 per cent more, and mine is 65 grain; his is 53.

Mr. Simmons: How do you measure this increased weight on the roll?

Mr. Lockman: You measure that by the tension that your spring is. You take a spring which is making 40 per cent compression and send that to the manufacturer and ask him to give you a certain percentage of that tension, and they will do it.

Mr. Simmons: What you had reference to by 50 per cent was the increase in the sliver in the can by 50 per cent; and you are getting 30 per cent, Mr. Lockman?

Mr. Lockman: Yes, sir. I tried 40, but it would not work and we came down.

Mr. Simmons: Why wouldn't it work? Too much compression?

Mr. Lockman: It compressed it too much, and it would not run well.

Mr. Simmons: Are you going to leave yours at 50, or are you going to vary it some?

Mr. A.: I imagine we shall vary it some.

Mr. Simmons: You are going to come down and try to find the best point?

Mr. A.: Yes, sir.

Changing Hole in Trumpet

Mr. B.: I should like to ask a question. Has anyone

(*Continued on Page 40*)

Slasher cylinders stay in permanent alignment, mounted on these Fafnir Slasher Boxes. Their deep-race, large-ball Fafnir bearings show virtually no wear, hence end the problem of out-of-line cylinders, and selvage stretch on one side of the warp. In addition, the friction-freedom of these units cuts starting torque to a minimum.

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Eastern Carolina Group Discusses Mill Problems

THE Eastern Carolina Division of the Southern Textile Association held its spring meeting in the Textile School of North Carolina State College, Raleigh, N. C., on Saturday morning, April 26, 1941, being called to order at 10 o'clock by the Chairman, W. H. Miley, Jr., superintendent of No. 2 plant of The Erwin Cotton Mills Co., Erwin, N. C.

The first part of the report of the meeting of the Eastern Carolina Division was published in the May 15 issue, and covered in particular the compressing of card sliver, by several methods, in order to get more sliver in the cans. The report of the meeting continues here, still on the subject of cards.

Mr. Clark: I want to call attention to a question related to this. A number of the counter people have been asked by the mill men to give them counters for cards, the idea being that some of the cards do not give enough production. I have heard discussion as to where that counter should be put. It has been suggested that it might be placed on the calender roll, at the condensing rolls, or at the rolls in the coiler head. I should like to hear some discussion as to where that should go.

Mr. F.: I would suggest that it should be put on the front calender roll.

Mr. Gilliam: That is at the end of the card.

Mr. Clark: The objection to that is that if an end breaks down the machine would still be registering production, when not producing. They would have to develop a stop motion in some way, so that the card would stop off if the end were to break down.

Mr. Gilliam: Would anyone else like to give a suggestion as to the point to put this counter? If not, he will go on to the next subject, which is a discussion on the improvements in machines and methods as seen at the Southern Textile Exposition. Let's first take up opening and picking. Did you go to the show, Mr. K.?

Mr. K.: Yes, sir.

Mr. Gilliam: Will you give us your observations as to what you saw there?

Mr. K.: I think it was a right good show, but so far as improvements in opening and picking machines, I don't know.

Mr. Gilliam: In my observations there I did not see much as to opening and picking. The biggest part of it was from the cards on. Mr. F, did you go?

Mr. F.: Yes, sir. There was one machine that had a gyrator that was hooked on, to clean and to transfer the cotton to the picker.

Mr. Gilliam: Did you see any improvements?

Mr. F.: I would not say that I saw anything there that I considered an improvement, no, sir.

Mr. Gilliam: The biggest improvement that has happened in recent years in picking is the one-process picker.

Mr. F.: Yes, sir. Everybody has one-process picking now, and I think from what I saw most of them are superior to what I saw down there.

Mr. Gilliam: Mr, L, did you go to the show?

Mr. L.: Yes, sir.

Mr. Gilliam: Tell us what improvements you observed.

Mr. L.: Of course, the machines were ideal; they were put up there for us to see. I do not know how they would be in the mill, but I doubt if anything that I saw would be much better than what we have, under the conditions under which we have to use them. I do not know that I saw anything outstanding or that I could say anything about it that would interest this body.

(At this point Dean Nelson, of the Textile School, and Colonel Harrelson, Dean of Administration, entered the hall.)

Chairman Miley: Gentlemen, we have Colonel Harrelson, president of State College, here, and I am going to ask him if he will not speak to us now.

Col. J. W. Harrelson, Dean of Administration, College of Agriculture and Engineering, University of North Carolina.

Gentlemen, it is a pleasure to have you here. As I have said before, we want you to know that this is your school. We are merely temporary custodians of the property and makers of the policies of the institution. We are very happy to have you with us, and I take pleasure in coming and extending on behalf of the college a message of welcome.

You know in the main, of course, what the program of this institution is—research and teaching. We feel that the research part of the program should be expanded. In all probability we are not doing as much as you would like have us do in the field of research. Possibly, too, we should go more into the field of extension; that is, go out and find out more about your problems. Those things call

(*Continued on Page 44*)

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S. C. Court Holds Mills Not Bound To Deduct Dues

Columbia, S. C.—The South Carolina Supreme Court has held in a four to one decision that employers could not be compelled to deduct union dues from a worker's earnings in the absence of a specific agreement.

The local affiliate of the Textile Workers' Union of America, CIO, sought to require the Pacific Mills to deduct union dues each month from the workers' earnings through an assignment of wages. The union, in a collective bargaining agreement and contract signed with the textile mills in October, 1939, failed to obtain a clause providing for "checking-off" union dues.

A month after the collective bargaining agreement and contract had been signed the union presented 1,100 partial assignment of wages to the company. The textile mills declined to honor the wage assignmenst and obtained an interlucutory injunction under which it held in abeyance payment of the union dues from the workers' wages until settlement of the case.

The only contract involved in the case, the majority opinion said, was the contract under which the company agreed to pay its employees "a certain compensation or wages for their services and under the law as it has been declared by our courts, to pay the whole of said compensation or wage to either the employee or to any one assignee thereof, but there is no contract to pay except as a single act."

The court pointed out that the Pacific Mills had "refused to enter into a contract with the respondent union as the bargaining agent for its employees which embodies the 'check-off' system . . .

"For a court to enforce such partial assignment of wages would be tantamount to compelling (the textile mill) to enter into a contract, or writing a clause into a contract to which (the textile mill) objects. It is the duty of courts to enforce contracts, but to refrain from making them. . . ."

The court continued that to uphold the right of the union or the worker to require the company to deduct union dues would "force" the textile mills "to become the agent of such of its employees as are members" of the union. ". . . the appellant has the legal right to refuse to accept such an agency even if it were offered compensatiton for the additional work. . . .

"The appellant and the respondent union, one a private corporation, and the other an association of individuals, occupy no different position from that of any other class of citizens in the eyes of the law in South Carolina."

The court said although it recognized a partial assignment in some instances, it could not do so when such a ruling would work "a hardship upon the debtor."

Pointing out that the union had presented 1,100 assignments of wages, the court said the mills employed about 2,300 persons and "additional assignments will be filed.

"Furthermore, if appellant can be compelled to recognize these partial assignments, either at law or in equity, then all other partial assignments which may be executed and delivered by appellant's employees would likewise have to be honored; and carried to a logical conclusion, appellant would have to do a banking business insofar as open checking accounts are concerned."

The Pacific Mills had argued that enforcement of the assignments would "compel the company to violate the National Labor Relations Act."

In this connection, the Supreme Court said it could see "no necessity for entering into the legal maze which has been created by the decisions attempting to construe the National Labor Relations Act. We will, therefore, content ourselves with the statement that in our opinion, to force appellant to recognize these partial assignments would be against the spirit, if not against the letter of" the act.

The majority opinion was prepared by Associate Justice D. Gordon Baker and concurred in by Chief Justice Milledge L. Bonham, Associate Justice Edward L. Fishburns and Acting Associate Justice L. D. Lide.

The dissenting opinion was by Acting Associate Justice J. Strom Thurmond.

Groups Merge To Promote Cotton Use

The Southern cotton textile industry has joined with the other five branches of the raw cotton industry in the most concentrated and far-reaching drive in the industry's history with the purpose of extending the uses of cotton, it was announced by W. M. McLaurine, secretary and treasurer of the American Cotton Manufacturers' Association.

Members of the industry were notified of the plan and urged to take an active part in letters which went out from the Association's office over the signature of W. N. Banks, of Grantville, Ga., president of the organization.

As a result of the action of the cotton textile industry, the spinners are now joined with the producers, ginners, cotton warehousemen, cotton merchants, and cottonseed crushers in the National Cotton Council, The American Association has appointed its 30 spinner delegates to the council, and its five members of the council's board of directors and names of these men were announced.

Delegates from District No. 1, which is North Carolina, are Herman Cone, of Greensboro; A. K. Winget, of Albemarle; W. H. Entwistle, of Rockingham; E. N. Brower, of Hope Mills; Dave Hall, of Belmont, and F. B. Bunch, of Statesville. South Carolina, District No. 2, has the following delegates: Fred W. Symmes, of Greenville; W. A. Floyd, of Greenville; D. W. Anderson, of Pacolet; J. A. Chapman, Jr., of Spartanburg; Earle Stall, of Greenville, and C. C. Stokes, of Cheraw. Delegates from Georgia, District No. 3, are L. L. Jones, of Canton; Norman E. Elsas, of Atlanta; D. A. Turner, of Columbus; H. H. Greene, of West Point; Henry D. Tichenor, of Monroe, and Harrison Hightower, of Thomaston. From Alabama, Dtstrict No. 4, delegates are Benjamin Russell, of Alexander City; Hugh M. Comer, of Sylacauga; George Elliott, of Huntsville; Paul A. Redmond, of Birmingham; F. O. Tyler, of Anniston, all of Alabama, and Joe L. Lanier, of West Point, Ga. Delegates from District No. 5, which is composed of other States in the South, are Ernest Rees, of Fayetteville, Tenn:; Herbert A. Burow, of Bonham, Tex.; W. L. Steele, of West, Tex.; B. F. Berman, of Stonewall, Miss.; George West, of Chattanooga, Tenn., and Henry Roediger, of Danville, Va.

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LUPOMIN Q is a cation active softening agent available in quick-dissolving paste form. It is equally effective in an acid, neutral or alkaline bath, and mixes with gelatins, gums, starches or dextrines. LUPOMIN Q can be used with alkaline-earth salts *without the usual acidifying with acetic acid.* The elimination of this special treatment effects savings in time and money.

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The Function of a Textile Testing Laboratory

"A MILL LABORATORY is not simply a place where analytical work is performed on materials as an end in itself, but it is rather a place where every possible assistance must be given to the entire mill organization in maintaining and, wherever possible, bettering the products that are giving us our means of livelihood," it was stated by Henry D. Evans, of the Biddeford Division, of the Pepperell Mfg. Co., speaking on "Function of a Testing Laboratory in a Textile Mill," before the regular monthly meeting of the American Association of Textile Technologists recently.

In his talk Mr. Evans discussed the factors which lead to the establishment of testing laboratories within textile mills. The growing importance of these laboratories and the various phases of their operation as well as their equipment was discussed. Of particular interest was Mr. Evans' discussion of the personnel most desirable for a mill testing laboratory. In this connection he said in part:

"A laboratory consists of the human material of its personnel, and of the inanimate instruments operated by them. Very much of the work of a mill laboratory must, of necessity, be routine in its nature. Work of this kind requires, on the part of the operative, careful training in the particular operations which he or she is required to perform, high accuracy in the performance of these operations and, on account of constant repetition of the operation, a high degree of patience and not too much imagination. There must, however, be enough nimbleness of mind so that any result out of the ordinary is at once noted and is reported as soon as noticed, as much of the value of this sort of testing comes from detecting unusual conditions at their start so as to effect correction before much of such work gets actually into process. For the types of routine work involving testing of rovings, yarns and cloths by physical methods, and on plain cloth analyses I prefer not trained laboratory school operatives, but a normally bright girl of high school education. Such a person can be broken into exact required routine without having to break down habits of work acquired under other methods of instruction.

For routine work involving chemical analysis, I prefer men from trade high schools or junior colleges. Such men have gone far enough in their studies to grasp basic analytic procedures involved in general analysis, but have not reached the point where they are prepared to argue over the importance of a sixth decimal place figure. They can be quickly trained to handle large numbers of routine tests in groups as a matter of course. Too many of our textile school and college graduates have had drilled into them a definite technique for the performance of a definite analytical procedure. Give such a man a large enough sample, only one sample and unlimited time, and he will give you as fine an analytical result as you can ask for. Give him a dozen samples, no excess material in case of accident or error, and a definite time limit within which the work must be done and he is lost. Try to show him a system to handle such a job, and you have to break down objection after objection to each detail different to the one he has been trained in, and even then he does the job your way for a long time only because you are the boss. The other man knows the basic principles of manipulative processes, the basis of elemental chemical principles, but has not become fixed in his outlook on the exact methods of applying these principles in practice. He is willing to adopt a reasonable suggested method of procedure at once and without mental opposittion, and falls into the swing of group analysis because he has not become rooted in the straightened processes of individual analysis. Not hidebound, he sees new methods and short-cuts and is not afraid to mention them on the chance that they may make him appear foolish at times.

In addition to the above operatives involved in the strictly routine manipulative processes of laboratory procedure, there is needed a man trained in the theory of all of the above physical and chemical procedures, in the interpretation of the results of these procedures into mill operations, and, of at least equal importance, of such knowledge of human nature and personal adaptability and manufacturing knowledge in his mill's particular lines as to make his contacts with the various overseers both personally friendly and mutually trustful. To gain these latter essentials, I firmly believe that the head of a textile mill laboratory should have had actual mill experience in the operation of at least one department broad enough to have resulted in his having become overseer of the department. To secure the best of co-operation between laboratory and operating departments nothing helps so much as the ability to understand the viewpoint of the operator. This cannot be learned from books but only from experience.

Testing as described by Mr. Evans at the Pepperell plants consisted of more than just post-testing or trouble shooting. An important phase of the work is the control exercised and standards maintained by checking the product all along the line. This starts by examination of the fibers used and other raw materials. Through the yarn making processes the sliver, roving and yarns are checked.

(*Continued on Page 44*)

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Third Annual Textile Golf Tournament

CARL JORDAN, of Rock Hill, S. C., and Erwin Laxton, of Charlotte, are the champions of the Third Annual Southern Textile Golf Tournament which ended June 8th at the Carolina Club, Charlotte.

Jordan, representing the Rock Hill Printing & Finishing Co., of Rock Hill, S. C., won the title in the mill men's division of the tourney by defeating Gordon Eaves, of the Cloverdale Dye Works, High Point, N. C., 3 and 1.

Erwin Laxton, of Arnold, Hoffman & Co., copped the crown in the salesmen's division by conquering Bayard Storm, of Charlotte, 6 and 4.

The 1941 event drew a field of 208 golfers, a record entry. Medal honors went to Norman Campbell, of Kendall Mills, and Charles Kelly, of Borne, Scrymser Co., Charlotte in the mill and sales divisions, respectively. Both had 73's.

The National Weaving Co., of Lowell, N. C., won team honors with a score of 305 and was awarded the handsome trophy presented by the American Cotton Manufacturers' Association. Team No. 1 of Hudson Silk Hosiery Co., of Charlotte, was runner-up.

PHOTO'S AT TOURNEY

CAPTIONS READ LEFT TO RIGHT

1. R. F. Bumgardner, J. G. Morrow, Lester Summey, G. W. Rockett, members of the winning mill team, National Weaving Co.
2. J. H. Orr, Tom Lanier, J. P. Bell, W. M. Black.
3. C. J. Rape, Erwin Laxton (winner of championship flight, salesmen's division), N. C. Guthrie, Puddin Broome.
4. Algon Nester, Ted Morgan, Val Wilhelm, Grady Cobb.
5. A. L. Bridwell, F. F. Lawing, Nick Loughlin, W. A. Haines.
6. R. G. Spratt, Jr., M. N. Hall, J. A. Neal, W. S. Johnstone.
7. View of some of the prizes.
8. J. C. Martin, Fritz Seifart, Clarence Osborne, M. L. Brackett.
9. Lefty Lineberger, J. L. Bundy, D. S. Quern, Dorsey White.
10. W. T. Denning, J. C. Rotan, R. G. Graham, D. R. Greene.
11. F. C. Stough, D. W. Costner, Currie Solomon, LeRoy Ford.
12. B. E. Dillahunt, Henry Gaede, Chester Cobb, S. L. Black.
13. W. C. Epps, C. O. Stevenson, F. E. Bozeman, M. L. Wilson.
14. Norman Campbell, medalist, mill men's division.
15. Chas. Kelly, medalist, salesmen's division.
16. Carl Jordan, winner championship flight, mill men's division.
17. M. W. Rogers, Wm. A. Hinson, Reid Tull, Harry Gurske.
18. Headquarters and starting tee.
19. Ed. Kale, Jr., J. L. Treece, Lloyd Pope, Harry Isenberg.
20. Gordon Eaves, Chas. Vaughn, Cliff Myers, N .E. Sappenfield.
21. J .B. Jamison, J. R. Costner, Jake Isenberg, W. F. Lanier.
22. H. B. Constable, W. C. Green, Allen Craig, David Clark.
23. T. J. Hunter, H. R. Whitener, G. H. Gibson, LeRoy Newton.
24. S. W. Barrier, J. S. Neely, Robt. Helderman, P. C. Gault.

MILL MEN—FIRST ROUND

Saturday Morning, June 7th

CHAMPIONSHIP FLIGHT—Carl Jordan defeated Norman Campbell, 3 and 2; Alex Brooks defeated Lester Summey, 1 up, 21 holes; Chas. Rape defeated Puddin Broom, 1 up; Gordon Eaves defeated Chas. Vaughn, 1 up.

FIRST FLIGHT—R. F. Baumgardner won from Harold Thomas by default; L. C. Holshouser defeated Ralph Gilbert, 6 and 5; Frank Carter defeated Heath Brooks, 2 and 1; J. C. Williams defeated G. W. Rockett, 1 up, 19 holes.

SECOND FLIGHT—W. F. Fink won from Marshall Davenport by default; Felix H. Fink defeated Francis M. Hough, 3 and 2; Cecil Miller defeated J. G. Morrow, 5 and 4; Reid Collins defeated Leroy Reece, 1 up.

THIRD FLIGHT—W. M. Cooper defeated Nig Lloyd, 4 and 3; Vernon Reece defeated John Crockett, 2 and 1; Wilbert Wood defeated C. W. Brooks, 1 up; Robt. Broome defeated Herman Pyron, Jr., 4 and 3.

FOURTH FLIGHT—Jay Rotan defeated Wade Denning, 2 and 1; W. C. Epps defeated M. L. Wilson, 4 and 2; Elbert Lineberger defeated D. White, 1 up, 20 holes; H. Harris defeated A. B. McMakin, 3 and 2.

FIFTH FLIGHT—Ansell Bridwell defeated F. F. Lawing, 5 and 4; Everett Isenberg defeated John W. Coleman, 1 up; Reuben H. Gibson defeated J. C. Neely, 3 and 2; Tom Smotherman defeated P. B. Martin, 6 and 5.

SIXTH FLIGHT—Frank Ford defeated C. C. Cox, 4 and 3; Bert Holland defeated F. T. Roberts, 5 and 3; Jim Rotan defeated Kenneth C. Nance, 3 and 1; Geo. Waterhouse defeated W. M. Hollis, 7 and 6.

SEVENTH FLIGHT—Louis Floyd defeated W. M. Blalock, 5 and 3; J. R. Baker defeated Webb Hopper, 1 up; Lonnie Price defeated Bill Smith, 6 and 5; Ray Carter defeated Joe Grabriel, 6 and 4.

EIGHTH FLIGHT—Norman Bentley defeated Carl Hurley, 4 and 3; John A. Shumate defeated Thorne Clark, 1 up, 19 holes; W. H. Layton defeated Doots Wright, 4 and 3; E. W. Wilson defeated Everett Sipes, 2 up.

NINTH FLIGHT—Wm. Hinson defeated Weldon Rogers, 3 and 2; M. N. Hall defeated Jas. Neal, 1 up; Allen Craig defeated David Clark (nephew of editor of Textile Bulletin), 5 and 4; C. D. Barnhardt defeated Paul Carter, 2 up.

TENTH FLIGHT—Leroy Foard defeated F. C. Stough, 5 and 3; Durwood Costner defeated Currie Solomon, 4 and 2; W. M. Black defeated J. P. Bell, 3 and 1; Howard Hughes defeated Taft Garris, 5 and 4.

ELEVENTH FLIGHT—Grady Cobb defeated Val Wilhelm, 1 up; P. C. Gault defeated Robt. Hilderman, 1 up, 19 holes; Harry Isenberg defeated Lloyd H. Pope, 6 and 5; S. L. Black defeated Ben Dillahunt, 2 up.

TWELFTH FLIGHT—John Neely defeated Sam Barrier, 5 and 4; Ralph Danner defeated C. W. Frederick, 4 and 3; Ted Morgan defeated Algon Ivester, 1 up, 19 holes; Ed Kale, Jr., defeated Lee Treece, 2 up.

THIRTEENTH FLIGHT—Clyde Newton defeated A. Metzger, 4 and 3; Ted Sechler defeated Thurman Hammer, 6 and 5; Jake Isenberg defeated W. F. Lanier, 1 up; M. W. Carter won from L. C. Campanyner by default.

FOURTEENTH FLIGHT—Stephen H. Gibson defeated T. J. Hunter, 4 and 3; C. F. Martin defeated Lester McHaffey, 2 up; A. M. Fairley, Jr., defeated Tom Hollingsworth, 3 and 2; J. B. Jamison defeated J. R. Costner, 2 and 1.

FIFTEENTH FLIGHT—Hoyle Thomas defeated C. Rhymer, 5 and 4; Wm. M. Lentz defeated Lewis Scott, 1 up; Paul Eby defeated Fred Crocker, 6 and 5; Fritz Seifart defeated J. C. Martin, 8 and 7.

SIXTEENTH FLIGHT—C. H. Gosnell defeated Vance Talbert, 2 and 1; Bollie Brewer defeated Earl Price, 3 and 2; Clarence Osborne defeated M. L. Brackett, 6 and 5; Leroy Newton defeated H. R. Whitener, 4 and 3.

SEVENTEENTH FLIGHT—M. O. Plyler won from Alton Hendrix by default; Edgar J. Powell defeated Z. A. Ross, 1 up; Arthur Sell defeated T. W. Church, 4 and 3; Steve Davis defeated Brooks Frazier, 5 and 4.

SALESMEN—FIRST ROUND

CHAMPIONSHIP FLIGHT—Chas. Kelly defeated J. A. Baker, 1 up; Bayard Storm defeated Tom Brockman, 3 and 2; Erwin Laxton defeated N. C. Guthrie, 4 and 3; Cliff Myers defeated N. E. Sappenfield, 4 and 3.

FIRST FLIGHT—Bill Terrell defeated Chas. F. Stokes, 1 up; W. A. Kluttz defeated H. D. Clinton, Jr., 1 up, 19 holes; Guy Williams defeated C. W. Lynch, 7 and 6; Ed Reid defeated A. T. Lomax, 4 and 3.

SECOND FLIGHT—Shirley Taylor defeated W. C. McCosh, 4 and 3; D. R. Green defeated R. G. Graham, 1 up, 20 holes; C. O. Stevenson defeated F. E. Bozeman, 2 up; Stewart Quern defeated J. L. Bundy, 2 and 1.

THIRD FLIGHT—R. L. Winston defeated A. Benson Davis, 4 and 3; Nick Loughlin defeated W. C. Haines, 2 and 1; S. R.

(*Continued on Page 40*)

Mill News

Central, S. C.—The Central Mills have recently installed 15 new Saco-Lowell cards and eight long draft Saco-Lowell spinning frames. This will give this plant a total of 25,848 spindles.

Lexington, N. C.—First machinery is already in operation in the large addition to the Lexington Silk Mill of the Burlington Mills Corp., of Greensboro, just completed here. Within a few weeks the entire new portion of the plant, which makes rayon dress goods, will be in operation. The plant is now operating six days a week with three shifts and when the additional machinery is all in operation it will employ well over 500, according to company officials.

Weldon, N. C.—Weldon's major industry, Perfection Mills, which has been closed for some time, will begin full time operation at once.

Fletcher H. Gregory, banking executive of Halifax, has acquired the interest of W. T. Shaw, of Weldon, who for many years operated the mill, and several local men have acquired the remaining stock. S. L. Greene, who comes here from Rockingham, will be the mill superintendent.

Union, S. C.—An official of the Excelsior Mills, now under new management, has announced plans to establish in Union the first complete woolen mill in the State.

All cotton machinery is being removed from the plant premises and the latest in equipment for the processing of raw wool into finished cloth will be installed. Delivery of the new machines is to begin in mid-August and will be completed in the latter part of November.

A training program on weaving and spinning will begin next month to familiarize workers with the manufacture of woolen cloth.

Gaffney, S. C.—A spark from an electric motor touched off a fire in jacquard looms at the Derry Damask Mills here June 11th, causing damage unofficially estimated at several thousand of dollars.

The fire was reported to have started when A. H. Watts, a loom fixer in the plant which manufactures bedspreads, threw the switch on a motor set at the top of a loom. A spark leaped from the mechanism and set fire to yarn and cloth in the loom. Twelve sprinkler heads were set off by the flames, which were finally subdued by city firemen. The building was not badly damaged and with the exception of one loom, water caused most of the damages, it was reported.

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Griffin, Ga.—A small tornado June 14th did damage to the Georgia-Kincaid Mills here estimated at approximately $15,000. The damage was partially due to the wind and partially due to water damage by the rain accompanying the storm.

Shawmut, Ala.—Architects plans have been drawn for enlarging and remodeling the office building of the Shawmut Mill Division of the West Point Mfg. Co., and work will begin at once, a representative of the company announced. The cost of the improvements will be approximately $10,000, it was stated.

When completed, the new building will be about one-third larger, with most of the additional space to be used for the general office.

Durham, N. C.—An addition to the bleachery of the Erwin Cotton Mills here, designed to increase production in that department by 20 per cent, is under construction and will be completed in five or six weeks, according to William H. Ruffin, Erwin Mills secretary.

The project was made necessary, in part, by defense orders. The Erwin Mills are operating two shifts at plant capacity and a third shift in part of the plant. The bleachery addition, to cost $11,000, is being erected by W. L. Jewell, of Sanford, N. C. Two washing machines will be added to the bleachery, which now operates seven.

Burlington, N. C.—King Cotton Mills Corp. plant, situated on Ireland street, one of the oldest manufacturing plants in Alamance County, has been purchased by the Celanese Corp. of America.

The sale was closed when representatives of the two firms met with Robert M. Jeffreys, principal stockholder, in Richmond.

The plant will continue operations under the present set-up for about 90 days, in order to finish goods now in process, it was announced.

The move may eventually result in an expansional program for the plant, and an increase in both employment and payroll for the local mill.

King Cotton Mills was one of the first mills to successfully spin yarns of all acetate rayon staple and high percentage blends of this fiber. The mill has for some time made cotton yarns and blends of various types.

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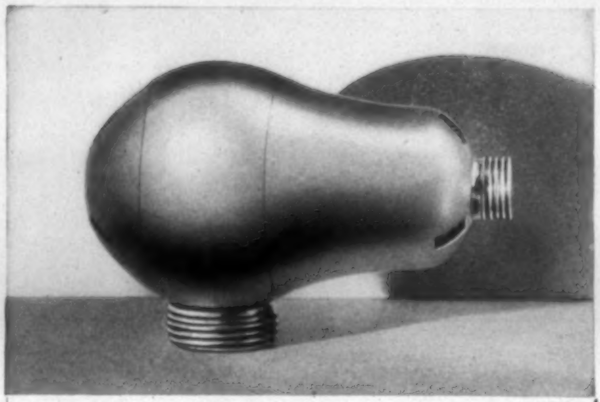

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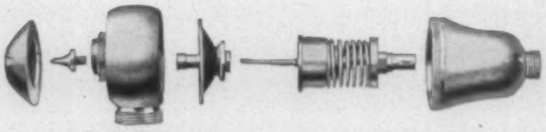

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Personal News

Thomas Cousins has been made general manager of the Dwight Mfg. Co., Alabama City, Ala.

S. L. Green has accepted the position of superintendent of the Perfection Mills, Weldon, N. C.

O. S. Jones is now superintendent of the Plymouth Mfg. Co., McColl, S. C.

E. F. Hartman is now superintendent of the Laughlin Full Fashioned Hosiery Mills, Randleman, N. C.

G. G. Smith is now superintenden tof the A. Leon Capel Mill, Troy, N. C.

J. Lee Cline is now superintendent of the Shuford Hosiery Mills, Hickory, N. C.

Robert Rearden has been named assistant superintendent of the Langdale, Ala., plant of the West Point Mfg. Co.

H. G. Reynolds has been promoted from carder and spinner to assistant superintendent of the Anchor Mills Co., Huntersville, N. C.

A. M. Lapish has been promoted from the position of fixer to that of assistant overseer of carding at the Anchor Mills Co., Huntersville, N. C.

Gerard Chapin, formerly assistant superintendent, has been made general superintendent of the Lyman, S. C., division of Pacific Mills. He succeeds C. B. Hayes, now vice-president in charge of operations in South Carolina.

Milton D. Crawley, formerly with Thomaston Cotton Mills, Thomaston, Ga., is now foreman of second shift carding and spinning at Granite Falls Mfg. Co., Granite Falls, N. C.

Joe F. Chalmers has been appointed general superintendent of the Greenwood (S. C.) Cotton Mill, in addition to his duties as general superintendent of the Mathews Mill, also of Greenwood.

S. T. A. MEETING NEXT ISSUE

Our July 1st issue will cover completely the Annual Convention of the Southern Textile Association, held in Myrtle Beach, S. C., June 12-13-14. Included will be the addresses, prize winners in tournaments, new officers, photographs, etc.

Weston Taylor, formerly of Saxapahaw, N. C., is now superintendent of Lakedale Mills, Fayetteville, N. C. This was formerly the Faytex Mills.

Charles Jones, overseer of carding at Plant No. 2, Springs Cotton Mills, Fort Mill, S. C., was married recently to Mrs. Lillie Bailes Farris.

South Carolina Cotton Manufacturers Hold Annual Meeting

Myrtle Beach, S. C.—President James A. Chapman, of Spartanburg, told the South Carolina Cotton Manufacturers' Association in his annual report at their recent convention, that the estimated textile payroll in South Carolina, based on State Department of Labor figures, totaled almost $85,000,000 yearly and that textile wages were higher than ever before.

About 100,000 persons, he said, are now employed in the industry in South Carolina. Out of every four industrial employees in the State, three are employed by the textile mills. He presented a wage index showing annual earnings of textile workers had increased 199 per cent since 1909.

Chapman said South Carolina's cotton yield per acre was now the highest of any cotton-producing State and that consumption by State mills for the year ended June 30, 1940, exceeded the production of South Carolina farmers by a half million bales.

The association, winding up its annual convention, re-elected Chapman president.

It also re-elected S. H. Swint, of Graniteville, vice-president; W. P. Jacobs, of Clinton, executive vice-president and treasurer; Sadler Love, of Clinton, secretary, and T. Frank Watkins, of Anderson, general counsel.

The following were named directors: J. B. Harris, B. B. Gossett, George M. Wright, H. K. Hallett, Earle R.

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Stall, G. B. Hayes, B. F. Hagood, M. L. Cates, C. B. Nichols and P. Opp. Capt. Ellison A. Smyth and J. E. Sirrine are permanent members of the board.

W. Ray Bell, of New York, president of the Association of Cotton Textile Merchants, explained defense needs and requirements in the field of cotton textiles.

Breen Represents US Bobbin

According to an announcement received from the US Bobbin & Shuttle Co., of Lawrence, Mass., Albert R. Breen will again represent that company in the middle west. Mr. Breen will again be located at 80 East Jackson Blvd., Chicago.

Wm. L. Wetzell, Jr., Joins Foster Machine Co.

William L. Wetzell, Jr., has joined the organization of the Foster Machine Co. as salesman. He will have headquarters at the Charlotte, N. C., office of the company, and will be associated with Edward C. Connor in covering the territory served by the Charlotte office.

Mr. Wetzell was graduated from the textile school of North Carolina State College in 1938. During summer vacations he worked in combed yarn mills in Gastonia, N. C., and since graduation has been employed by Morganton Full Fashioned Hosiery Co. and Garrou Knitting Mills. He was made night superintendent of these plants several months before resigning to become associated with Foster.

Stuart W. Rabb Joins W. D. Dodenhoff Co.

A recent statement by W. D. Dodenhoff Co., of Greenville, S. C., announces the association of Stuart W. Rabb with that organization. Mr. Rabb, formerly general manager and vice-president of Erlanger group of mills, is a well known figure in textile circles.

Mr. Rabb assumes the position of general manager of the company, a position for which he is ably qualified in view of his long experience and first-hand knowledge of textiles. For the present Mr. Rabb will devote most of his efforts to the Check-Master Division, a mechanical unit which is used to eliminate check straps on looms. This unit was introduced earlier this year by the W. D. Dodenhoff Co. Mr. Rabb will maintain offices at the company's headquarters in Greenville, S. C.

Elliott Springs Into Air Corps

Capt. Elliott White Springs, of Fort Mill, S. C., internationally famous World War fighter pilot and nationally known textile industrialist, has been recalled to army service and will be assigned immediately as executive officer of the Charlotte, N. C., Air Base.

Management of the multi-million-dollar Springs chain of textile manufacturing plants in South Carolina will be turned over largely to executives of the corporation for the duration of the emergency.

Captain Springs, 46, has a record of having downed eleven enemy planes in combat over France in the World War. He won the American Distinguished Service Cross, the British Distinguished Flying Cross and the American Aero Club Medal of Honor.

D. H. Hill, Jr., To Enter Army

D. H. Hill, Jr., son of the late D. H. Hill, associate editor of the TEXTILE BULLETIN and secretary of the Southern Textile Association, graduated June 9th from the textile school of N. C. State College.

He will, however, not enter the textile industry at present, as he has received a commission as second lieutenant and must report at Fort Benning, Ga., on June 25th. Due to his fine record at N. C. State College he has been recommended for early promotion.

D. H. Hill left us for service during the first World War but returned immediately after he was mustered out.

The grandfather of D. H. Hill and therefore the great-grandfather of D. H. Hill, Jr., was General D. H. Hill of the Confederate Army, who was a brother-in-law of General Stonewall Jackson.

Charlie C. Switzer Joins Keever Starch Co.

Charlie C. Switzer has joined the sales staff of the Keever Starch Co., with headquarters of the Textile Sales Division in Greenville, S. C., as their sales representative covering part of South Carolina and part of Georgia.

Mr. Switzer is a native of Shelby, N. C., and has had several years' sales experience with the Goodyear Rubber Co., in Charlotte, N. C. He will make his home in Greenville, S. C., Southern headquarters of the company.

ANNOUNCEMENT

The Troy Whitehead Machinery Company wishes to announce the purchase of the Charlotte plant, warehouse and stock of the C. L. Upchurch & Sons, Inc., effective May 24, 1941. Under this arrangement C. L. Upchurch & Sons, Inc., retire from business at their Charlotte branch.

The Troy Whitehead Machinery Company is owned and operated by Troy Whitehead of Charlotte and has been in business here for a number of years, specializing in used textile machinery and supplies.

We also wish to take this occasion to announce that Mr. Royce Edmondson, well known in the textile field, is now associated with our organization as General Manager.

Under our new set-up, we have greatly enlarged our scope of operations and facilities for serving the Textile Industry of the South, and we are better prepared than ever to serve you.

We solicit your inquiries, and they will have our immediate attention.

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TEXTILE BULLETIN

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Salesmen's Visits

There is an increasing tendency upon the part of mills, especially those who do their buying through a central agency, to prohibit salesmen from visiting their superintendents or their mills.

While we realize that the new rules were promulgated for the purpose of conserving the time of the superintendents, it does appear to us that some of the advantages of the visits of salesmen have been overlooked.

It is, indeed, one of those questions which present two sides and a policy of fifty years, or more, should not be discarded without considering both the advantages and disadvantages.

Most salesmen for textile machinery and supplies have practical knowledge of textile manufacturing and many have actual experience.

As the salesmen go, from mill to mill, they acquire information about new machines and new processes and pass the information to others they visit.

Many a superintendent, faced with a serious problem or contemplating the purchase of new equipment, has, as the result of the visit of a salesman, acquired just the information he desired and we do not hesitate to state that the visits of salesmen have been worth thousands of dollars to some mills and probably millions of dollars to the industry as a whole.

There was a time when New England had 21,500,000 cotton spindles, but are now operating less than 5,000,000 and at least some of the decay can be attributed to lack of information upon the part of superintendents and other mill men, who were denied contact with salesmen.

We cannot blame any mill, especially in times such as those of the present, for wishing to have the superintendent devote all of his time to the operation of the mill, but they should also realize that to deny him visits from salesmen is to deny him much information about mill problems and mill equipment, some of which may be worth very much to the mill.

The salesman who makes long visits should be denied admission, but we believe that, to deny admission to all salesmen, will in the end prove disadvantageous and perhaps costly.

The Myrtle Beach Meeting

The recent Myrtle Beach meeting of the Southern Textile Association was declared by many to have been one of the best in its history.

The program was well balanced between excellent addresses and social features. Many of those who did not play golf entered the set-back or the horseshoe pitching tournament.

The banquet of the salesmen's division on Thursday night was featured by an exceptionally high class floor show, while that of the mill men on Friday night featured a bingo game through which a large list of handsome prizes were distributed.

The salesmen's banquet also featured the presentation of silver goblets to the chairman of the division and all past chairmen. Realizing that no souvenir had been given to the nine men who had served as chairman, the TEXTILE BULLETIN, with the consent of the officers, presented each with a silver goblet engraved with his name and his year of service. In the future each chairman of the Associate Members' Division will receive a similar goblet at the close of his term of office.

A very noticeable feature of the meetings of the Southern Textile Association is the ever-increasing number of ladies who attend. The old idea of having a good time by congregating in rooms and drinking seems to have passed and the members now bring their wives and daughters and there are banquets, dancing, bathing and games.

The hotel management complimented the Southern Textile Association when it said that it was the best behaved crowd that they had ever entertained at a convention.

Union Pays Damages

The famous Apex Hosiery Co. suit against the County of Philadelphia, Pa., and the American Federation of Hosiery Workers has been compromised under an agreement by which the county pays $15,000 and the union pays $110,000. The county also agreed to pay $10,000 in legal fees.

To refresh the memories of our readers we quote the following from our issue of June, 1937:

> "On May 6th the C. I. O. declared a half holiday for the hosiery mills in that section of Philadelphia and about 2 p. m. a mob estimated at from 6,000 to 10,000, but containing very few employees of the Apex Hosiery Mills, descended upon that mill and almost unbelievable are the accounts of the vandalism and violence inflicted.
>
> "Doors of the plant were unhinged . . . company officials and workers were assaulted—50 were injured—18 were rushed to hospitals—office records, payroll records, social security records were thrown to the four winds—desks were overturned—the mill dispensary wrecked—windows smashed—as the mob made a forcible entry and took possession of the plant. A court injunction which was in effect at that time was defied as the C. I. O. care nothing for law.
>
> "The president, vice-president and the president's son were severely beaten and it was necessary for two of them to enter a hospital."

It is reported that just before the mob entered the buildings, a Philadelphia policeman entered the office and, laying the proposed contract with the union upon the president's desk, stated that unless it was signed, he would step aside and permit the mob to enter the plant.

The officials of the Apex Hosiery Mills refused to be intimidated by the combination of policemen and the mob, with the results enumerated above.

After the outrages had been committed they brought suit against the union and the county and won a verdict of $711,000 in the United States District Court but when the case reached the United States Supreme Court, it held that the question of damages was a matter for the State courts.

The officials of the Apex Hosiery Co. stuck to their guns and began proceedings in the State courts and the American Federation of Hosiery Workers, realizing that they must eventually pay for their illegal acts, began negotiations for a compromise.

Philadelphia County now pays $15,000 to the Apex Hosiery Co. and $10,000 for legal fees as the result of the failure of its officers of the law to protect, from mob violence, persons and property at the Apex Hosiery Co.

The American Federation of Hosiery Workers, realizing the danger of being forced to pay a much larger sum, pays to the Apex Hosiery Co. $110,000 as retribution for illegal acts committed by their members.

Not only the textile industry, but every industry in the United States, is under obligation to the officials of the Apex Hosiery Co. for establishing the fact that unions and their members can be held accountable and made to pay for acts of violence.

Another thing, which should be settled, is the accountability of unions for damages during strikes which are in violation of agreements.

If a cotton mill makes a contract with a cotton merchant for specified amounts of yarn at specified intervals and the seller fails to deliver according to contract, he can be sued for the amount of the loss due to stoppage.

If a textile mill makes a contract with a union to operate according to certain specified conditions, the union can and should be held accountable for damages due to stoppage if the mill has lived up to the contract and the stoppage is due to violation of same by the union.

Such a situation now exists at a North Carolina knitting mill and they could, by emulating the example of the officials of the Apex Hosiery Co., render a service to the industry. They should enter a damage suit against the union and its members and carry the case to the North Carolina Supreme Court.

Many of the top men in union ranks realize that unions suffer when they disregard the agreements they have made, but some of the organizers have no regards for contracts.

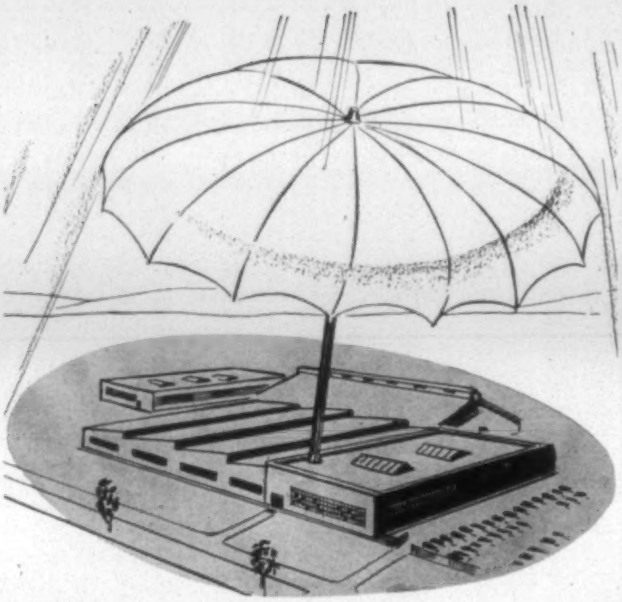
Third Annual Textile Golf Tournament

Elsewhere in this issue will be found the details of the Third Annual Textile Golf Tournament, the matches of which were played at the Carolina Golf Club, Charlotte, June 7th and 8th.

There were 146 textile manufacturers and 62 salesmen, or a total of 208, entered as against 192 in 1940 and 108 in 1939.

A feature of the 1941 tournament was that neither man who won the championship of the textile manufacturers division in 1939, or the man who won in 1940, was able to qualify for the championship flight and that exactly the same condition existed in the salesmen's division.

It also interested us to see a sweeper shoot a 73 to win the low medal in the mill men's division.



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DYEING AND FINISHING

Preparation for the Dyeing of Wool Raw Stock

By Charles F. E. Sedgwick

RAW STOCK wool dyeing is one of the most interesting of the dyeing processes. For here you are dealing with the virgin material taken from the animals' backs and starting its long journey toward the back of man. Heretofore it had been taught and practiced that raw stock wool dyeing was easy, that if one batch was off-shade then another one could be dyed and the two blended and that no one would be the wiser. This was all very true, but too good to last. Mind you, I am not saying that it isn't being done today, for it is. In the dyeing of government khaki for overcoating, blankets, etc., that are stock-dyed, it would be an utter impossibility to dye it otherwise, for the color is such that it is a blend. On the other hand, civilian work is somewhat different, with the orders received nowadays one needs possibly only 500 lbs. or less to fill the order. Consequently, the 500 lbs. must be on-shade with no mixing or blending. So the raw stock dyer is leaning now toward having each batch right without having to blend. So don't think a raw stock dyer has it too easy. The methods of raw stock dyeing have come a long way. I am not too old yet, nor am I too young, to remember the old pole dyeing days (with its headaches and heartaches), for when the carder received the stock it was felted very badly, especially if it had been boiled a little too long or poled too hard. Do you remember those days?

With the passing of the years, dyeing like everything else of value has advanced with the times; today we have automatic dye-kettles that do about everything but make up the formulae and match the shades themselves. No longer need the dyehouse be the wet—dingy—sloppy—steamy hole that it has been, but can now take its place with the other departments of the mill. Stainless steel, aluminum and chromium plating have all helped to lift the dyehouse from its slum condition and put it on Park Avenue with the other aristocrats. I remember well, acquainting one's self with the other fellow's shoes so that you could stoop down and tell who was who in the dyehouse. Not so today with the present engineering system of removing steam, or not allowing the steam to enter the room; you may now see from one end of the dyehouse to the other.

Getting back to the actual dyeing of raw stock, we have many things to consider: type of wool as to grade, strength, etc.; is it a wool that will absorb the dye easily or will it be unabsorbent; is it a clip wool clipped from the sheep's back or was it a pulled wool where sodium sulfite or calcium oxide (lime) was used; how was the wool scoured in an effort to remove all greases, dirt, etc., from it? Things like these must be determined before actual dyeing can take place. The safest way to overcome many troubles that may be attributed directly or indirectly to the chemicals left in the pulled wools, and to remove the soap or alkalies, is to give the stock a scouring with a good grade of ammonia and a good solvent, of which there are many. It helps at times to add a small percentage of Monopole oil. Personally I like ammonia, a solvent and tri-sodium phosphate. With the use of one of these or a combination of all I can get the dirtiest of stocks clean enough for dyeing and a good brightness and clearness of shade.

All stock dyeing is not of the virgin type, however, for in this dyeing (using a slang expression with your apologies) one may get away with murder. In some of the stocks I have handled, I have found about everything imaginable from a ram's horn to a garment button. There are all kinds of reworked stocks on the market, and sooner or later they find their way to the stock-dye house; to mention a few: noils, garnetts, clips of all kinds, rags, shoddies and what all. When you receive such material as these you are faced with a real problem. There is no telling how many processes these materials may have gone through before your receiving them, what chemicals may have been used on them; they may be highly acid or may be alkaline, they may be saturated with oils that are soluble and oils that are insoluble. These must all be removed, without injury to the stock if possible; but in any event they must be removed. You can never hope to get good dyeing unless you first have clean stock. Find out if possible what is in the stock you are going to dye, i.e., is it virgin wool, or is it a blend of virgin wools and some kind of reworked wool? Are the wools, both virgin and reworked, of a similar grade or are they different? If you have a virgin wool of a South American type, and some reworked stock of Australian lamb origin, you will never get them even no matter how hard you try. While I am not giving a lecture on wool and couldn't, even if I

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*Paper presented at meeting, Rhode Island Section, A. A. T. C. C.

had to give one, I feel this point should be made clear. Fine wools with many serations have a great affinity for dye, while coarse wool with little or no seration are just the opposite; they are almost impossible to penetrate with the dye.

Reworked stock, especially if it has been dyed before, will absorb dye very rapidly unless some dye retardent is used, while on the other hand coarse virgin wool is very hard to dye, especially if it is tipped at all. If you are dealing with blended wools, or with wools blended with reworked stock, then don't hope to have them looking the same, for it just can't be done. You may cover it all but they will not be sold.

After you have determined in your own mind the kinds and grades of stock, you are ready for scouring. Run at 130° to 140° F. for from ¼ to ½ of an hour, depending on the cleanness of the stock. Then thoroughly rinse with one warm wash (120°) and two cold washes. You are now ready for the dyeing process. There are many ways in which this may be carried out, but perhaps the simplest of all, and the most commonly used, is as follows: A certain percentage of acid, determined by the depth of shade, and Glauber's salt, are added at 100° to 120° F., and allowed to circulate for 5 min. The proper amount of dyestuff is then added before the steam is turned on, then brought slowly to the boil. Half an hour to 45 minutes is usually slow enough. Unless it is absolutely necessary to boil your stock, don't do it, for your colors will be no faster, nor will you help the stock any. Most of the circulating raw stock machines will give you the best results at 180° to 190° F. So why boil and weaken the stock? After dyeing for 15 min. add a percentage of acid, then again at 30 min.; 15 min. more and sample. This is where the dyer hopes for the best. Is it on shade or off? If it is, all well and good. That is, if you are dyeing with acid or milling colors. Usually a good rinse for 5 mins. is sufficient to cool the stock ready for coming out. Isn't dyeing simple?

You are familiar with chrome dyeing and the methods of application. Bottom chrome, chromate or top chrome; the same methods are used as in your piece-dyeing or yarn dyeing, so I won't go into detail.

While this method of dyeing may sound rather simple it is not as simple as appears on the face. In yarn or piece-dyeing one need not worry about carding. In raw stock dyeing the dyer has this added worry to see to it that the stock is in good condition for carding. A raw stock dyer must be very careful not to over-chrome his stock; for if this happens it will make the stock brittle and make a weak, dead yarn. On the other hand, not enough chrome will leave the dyestuff undeveloped and trouble will crop up in the wet finishing of the goods. Another point is that materials that are stock-dyed must be dyed with dyestuffs that will withstand fulling and washing as well as light. With the dyestuffs on the market today, one need have little worry on this problem, if he will but make tests of his own and draw his conclusions from the tests as to the merit of the dyestuff.

In the handling of raw stock wool one must use the utmost care. In machines such as the Franklin, Hussong, Obermaier or any other type of dye kettle that is of a circulating type, one's worries are comparatively small; for with the stock stationary, and liquid forced through it, there is little chance of felting. Stock in other types of machines is itself passing through the liquid and is more apt to felt, especially if the speed of the machine is too great. This fault is lessened to a great degree if the machine is run very, very slowly. I have found from experience, however, that one may obtain a more even dyeing from a rotary type machine than from a circulating type. I expect some disagreement on this point, but nevertheless those were my findings. Then, too, some stocks have low felting qualities. Low grade wools of a kempie nature, wools with little serations, will come out far more even and in as good condition from a rotary dyeing machine as from a circulating machine. This, however, does not hold true with easy felting wools, as the constant rolling in the rotary machine will felt it and mat it together unless a great deal of care is taken.

I should like to call your attention to some of the pitfalls a raw stock dyer may get into unless he uses extreme care. I have already mentioned the care that should be used in the scouring of the stock before dyeing, and I repeat that unless you have clean stock to begin with you are sure of disastrous times ahead. The next step is to see to it that your acid and salt are evenly distributed before putting in your dyestuff. Give the acid and salt plenty of time to be partly absorbed by the stock itself; this will help to keep your batch even. Let the dye liquor circulate for a short time before turning on the steam. This, too, will help you to get more even work. In some cases it may pay you to use ammonium acetate instead of acid. After the stock is dyed there remains the drying process.

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This must be done with the utmost care. See to it that the temperature of your dryer does not exceed 170° F. and you will have no trouble with your stock in the later processes. Too many times, in a hurry, we raise the heat of our dryer and make the stock crisp and brittle. A stock that is left a little moist will cause no end of trouble. The point is to give to the carder the best stock you can possibly turn out. After all, we are part of an organization to turn out the best product possible. There are troubles enough for the dyer that do not belong to him, rightfully at least, without making more trouble for himself. If you want an interesting job, get a position in a plant where raw stock dyeing is done. See what beautiful fabrics can be made, how the designer blends one color with another. A blanket mill will best illustrate this point. There are hundreds of patterns and nearly as many shades in them. The spectrum has nothing on a blanket mill for color. There are so many uses to which raw stock dyes can be put that I don't think the limit will ever be reached. Take the beautiful overcoats that are a mixed shade. This can only be accomplished by blending before carding. You can make twists, but it takes a real mix of dyed raw stock to give you an even blend in the finished fabric. Take for instance the beautiful plaid back overcoatings that were so popular a few seasons ago and the Chinchilla or Whitney finish; this mix just meets one's eye. And then the beautiful plaids with the nice snappy colors on the back illustrate the wonders of raw stock dyeing. There are really many ways of making a fabric attractive with the different blends of dyed raw stock that could not be done any other way. You see how one may ramble on and on and the first thing you know the subject is lost—"The Dyeing of Raw Wool," not the finished fabric is my topic. Getting back to the job of dyeing raw stock, my experience has been to know your stock is half the battle of the dyeing, for formulae can change from one lot to another. It is almost unbelievable how you may get the desired shade on a certain blend, then through just a minor change in the blend of stock the shade will become entirely different, almost unrecognizable. As I stated in the beginning, some wools will absorb the color very rapidly while others will resist the color. Those that do absorb, *really* absorb. I have seen a case where I had to triple the formula on a certain type of wool as against another in order to get the same shade. This, of course, works both ways. So where there is a wool blender constantly changing blends, watch him, for your own sake.

This would hardly be a lecture without some defense for the poor stock dyer. As regards shady filling, it is not always the fault of the dyehouse. Tight or loose filling, improper blending after dyeing, soft and hard ends from card, tight or loose warp in the loom—all may contribute to this fault. As regards a hard, brittle finish it is not always caused by overchromed or overdyed wool but may be alkali in the goods from soaps overdried after finishing. There are many faults laid at the door of the dyehouse, whether it be raw stock, yarn or piece dyeing, which are not the fault of the dyer at all but some from some other department. Yet the dyer must assume the responsibility of these faults unless he can prove otherwise. At the court of law a man is innocent until found guilty; not so with the dyer, he is guilty no matter what, until he proves himself innocent.

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S. C. Mill Men Discuss Carding, Spinning, Weaving

(Continued from Page 18)

tried changing the trumpets on the cards to get more sliver in the can, not using the spring?

Mr. Lockman: You mean the diameter of the hole in the trumpet?

Mr. B.: Yes.

Mr. Simmons: You hear the question. Has anybody tried that?

Mr. Stutts: I asked that same question at the last meeting, and one of the men reported that he had tried it, and that it wore the trumpets and he could not keep a consistent diameter of the trumpets. For a short while that is entirely feasible. You can decrease the diameter of your sliver by decreasing the diameter of the trumpets; how long it would work I do not know.

E. H. Atkins, Overseer Carding, Alice Mfg. Co., Easley: We have tried it for about five months and have not seen any difference in our breaking strength at all. Practically the only change I have seen in our mill at all, to my surprise, is that our card sliver headed up a little bit on the frame. That is the only change I have seen, and I have watched it pretty closely. Our breaking strength is practically the same as before. We are short on drawing, and it helps out considerably.

Mr. Simmons: How much increase did you get in your can?

Mr. Atkins: I would say fifteen minutes to the doff. We were running about fifty-five minutes and picked up about fifteen minutes. That is a big help. I believe a reasonable amount is all right, but you have to be reasonable.

Mr. C.: I tried the spring and was very much impressed with it. It helps out very much from the labor standpoint. One carder told me he thought he had more variation since putting on the springs.

I also have four of those tubes, that I just got last week, and we have not been able to get any benefit from them, probably due to our not knowing how to put them in. The tube might be all right if I just knew how to put it in.

Mr. Simmons: That is the tube to go in the coiler tube?

Mr. C.: Yes, sir. I like the spring very much.

Mr. Simmons: Is that tube designed to be used in conjunction with the springs?

Mr. C.: No, sir.

Mr. Simmons: Is it supposed to be used by itself?

Mr. C.: Yes, sir. That would be too much.

(To be continued)

Third Annual Textile Golf Tournament

(Continued from Page 27)

Lowder defeated Irving J. Royce, 4 and 3; Chas. Turpie defeated R. P. Bullard, 6 and 5.

FOURTH FLIGHT—Ty C. Bass defeated A. R. Lark, 1 up; Geo. W. Mallory defeated Bill Caldwell, 8 and 7; L. J. McGinty defeated L. P. Reid, 3 and 2; F. S. Stein defeated Don Jonas, 1 up.

FIFTH FLIGHT—R. G. Spratt, Jr., defeated W. S. Johnstone, 5 and 4; Joe Green defeated Henry Constable, 2 and 1; Harry G. Gurske defeated Reid Tull, 7 and 6; E. W. Best, Jr., defeated Q. M. Rhodes, 5 and 4.

SIXTH FLIGHT—Henry Gaede defeated W. C. Cobb, 3 and 2; Tom Lanier defeated J. H. Orr, 8 and 6; C. L. Robinson defeated Joe McKenna, 5 and 4; J .M. Abernathy won from Royce Edmondson by default.

SEVENTH FLIGHT—Ralph Jones, D. M. Culp, John E. Fox and Larry Taylor drew byes.

MILL MEN—SECOND ROUND

Saturday Afternoon, June 7th

CHAMPIONSHIP FLIGHT—Carl Jordan defeated Alex Brooks, 5 and 3; Gordon Eaves defeated Chas. Rape, 5 and 3.

FIRST FLIGHT—R. F. Bumgardner defeated L. C. Holshouser, 1 up, 19 holes; J. C. Williams defeated Frank Carter, 2 and 1.

SECOND FLIGHT—Felix Fink defeated his brother, W. E. Fink, 3 and 1; Reid Collins won from Cecil Miller by default.

THIRD FLIGHT—W. M. Cooper defeated Vernon Reece, 5 and 4; Wilbert Wood defeated Robt. Broome, 2 up.

FOURTH FLIGHT—Jay Rotan defeated W. C. Epps, 5 and 3; Elbert Lineberger defeated H. Harris, 6 and 5.

FIFTH FLIGHT—Everett Isenberg defeated Ansell Bridwell, 2 and 1; Tom Smotherman won from Reuben Gibson by default.

SIXTH FLIGHT—Frank Foard defeated Bert Holland, 7 and 6; Jim Rotan defeated Geo. Waterhouse, 2 and 1.

SEVENTH FLIGHT—J. A. Baker defeated Louis Floyd, 1 up; Lonnie Price defeated Ray Carter, 4 and 3.

EIGHTH FLIGHT—Norman Bentley defeated W. H. Layton, 6 and 5; E. W. Wilson defeated John Shumate, 3 and 2.

NINTH FLIGHT—Wm. Hinson defeated M. N. Hall, 3 and 2; Allen Craig defeated C. D. Barnhardt, 1 up.

TENTH FLIGHT—Durwood Costner defeated Leroy Foard, 5 and 3; Howard Hughes defeated W. M. Black, 3 and 1.

ELEVENTH FLIGHT—P. C. Gault defeated Grady Cobb, 6 and 4; Harry Isenberg defeated S. L. Black, 3 and 1.

TWELFTH FLIGHT—John Neely defeated Ralph Danner, 4 and 3; Ed Kale, Jr., defeated Ted Morgan, 7 and 5.

THIRTEENTH FLIGHT—Clyde Newton defeated Ted Sechler, 3 and 2; Jake Isenberg defeated M. W. Carter, 1 up.

FOURTEENTH FLIGHT—Stephen H. Gibson defeated C. F. Martin, 3 and 2; A. M. Fairly, Jr., defeated J. B. Jameson, 2 and 1.

FIFTEENTH FLIGHT—W. M. Lentz defeated Hoyle Thomas, 1 up; Fritz Seifart defeated Paul Eby, 7 and 6.

SIXTEENTH FLIGHT—C. H. Gosnell defeated Bollie Brewer, 1 up, 19 holes; Clarence Osborne defeated Leroy Newton, 5 and 4.

SEVENTEENTH .FLIGHT—Edgar J. Powell defeated M. O. Plyler, 1 up; Steve davis defeated Arthur Sells, 1 up, 20 holes.

SALESMEN—SECOND ROUND

CHAMPIONSHIP FLIGHT—Bayard Storm defeated Chas. Kelly, 2 and 1; Erwin Laxton defeated Cliff Myers, 6 and 5.

FIRST FLIGHT—Bill Terrell defeated W. A. Kluttz, 1 up; Guy Williams defeated Ed Reid, 4 and 2.

SECOND FLIGHT—D. R. Green defeated Shirley Taylor, 1 up; C. O. Stevenson defeated Stewart Quern, 1 up.

THIRD FLIGHT—R. L. Winston defeated Nick Loughlin, 3 and 2; S. R. Lowder defeated Chas. Turpie, 2 and 1.

FOURTH FLIGHT—Ty C. Bass defeated Geo. W. Mallory, 2 and 1; F. S. Stein defeated L. F. McGinty, 1 up.

FIFTH FLIGHT—Joe Green defeated R. G. Spratt, Jr., 6 and 5; Harry G. Gurske defeated E. W. Best, Jr., 5 and 4.

SIXTH FLIGHT—Tom Lanier defeated Henry Gaede, 4 and 3; C. L. Robinson defeated J. M. Abernathy, 3 and 2.

SEVENTH FLIGHT—D. M. Culp won from Ralph Jones by default; Larry Taylor defeated John E. Fox, 3 and 2.

MILL MEN FINALS

Sunday, June 8th

Note—All winners received silver. All runners-up had choice of rain jacket or set of covers for club heads.

CHAMPIONSHIP FLIGHT—Carl Jordan, of the Rock Hill Printing & Finishing Co., defeated, by 3 and 2, Gordon Eaves, of the Cloverdale Dye Works, High Point, N. C., 3 and 1.

FIRST FLIGHT—R. F. Bumgardner, of the National Weaving Co., Lowell, N. C., defeated, by 1 up, J. C. Williams, of Whitehall Hosiery Mills, Mt. Holly, N. C.

SECOND FLIGHT—Reid Collins, of Hudson Silk Hosiery Co., Charlotte, N. C., defeated, by 1 up, Felix Fink, of Cannon Mills No. 6, Concord, N. C.

THIRD FLIGHT—W. M. Cooper, Kendall Mills, Paw Creek, N. C., defeated, by 3 and 2, J. Wilbert Wood, general manager of the Chadwick-Hoskins Co., Charlotte, N. C.

FOURTH FLIGHT—Elbert (Lefty) Lineberger, of Cramerton Mills, Cramerton, N. C., defeated, by 5 and 4, Jay Rotan, of Cramerton Mills, Cramerton, N. C.

FIFTH FLIGHT—Everett Isenberg, of the Republic Cotton Mills, Great Falls, S. C., defeated, by 2 and 1, Tom Smotherman, of Groves Thread Co., Gastonia, N. C.

SIXTH FLIGHT—Jim Rotan, of Cramerton Mills, Cramerton, N. C., defeated, by 1 up, Frank Ford, of the Cramerton Mills, Cramerton, N. C.

SEVENTH FLIGHT—Lonnie Price, of Knit Products Corp., Belmont, N. C., defeated, 1 up, 19 holes, J. R. Baker, of the Hudson Silk Hosiery Co., Charlotte, N. C.

EIGHTH FLIGHT—Norman Bentley, of Hatch Full-Fashioned Hosiery Co., defeated, by 1 up, E. W. Wilson, of Southern

Bleachery & Print Works, Taylors, S. C.

NINTH FLIGHT—Allen Craig, of Hudson Silk Hosiery Co., Charlotte, N. C., defeated, 1 up, 19 holes, Wm. Hinson, of Highland Park Mfg. Co., Charlotte, N. C.

TENTH FLIGHT—Howard Hughes, of Larkwood Silk Hosiery Co., Charlotte, N. C., defeated, by 3 and 2; Durwood Costner, of Southern Bleachery & Print Works, Taylors, S. C.

ELEVENTH FLIGHT—Harry Isenberg, of Republic Cotton Mills, Great Falls, S. C., defeated, by 1 up, 22 holes, P. C. Gault, of Dunean Mills, Greenville, S. C.

TWELFTH FLIGHT—Ed Kale, Jr., of Hall-Kale Mfg. Co., Troutman, N. C., defeated, by 3 and 2, John Neely, of Gastonia Combed Yarn Corp., Gastonia, N. C.

THIRTEENTH FLIGHT—Clyde Newton, of Standard Hosiery Mills, Burlington, N. C., defeated, by 1 up, 19 holes, Jake Isenberg, of Republic Cotton Mills, Great Falls, S. C.

FOURTEENTH FLIGHT—Stephen H. Gibson, of Republic Cotton Mills, Great Falls, S. C., defeated, by 1 up, A. M. Fairley, Jr., of Waverly Mills, Laurinburg, N. C.

FIFTEENTH FLIGHT—Fritz Seifart, president of the Hudson Silk Hosiery Co., Charlotte, N. C., defeated, by 1 up, 19 holes, W. M. Lentz, president of the Crown Converting Co., Lincolnton, N. C.

SIXTEENTH FLIGHT—Clarence Osborne, of the Hudson Silk Hosiery Co., Charlotte, N. C., defeated, by 1 up, 19 holes, C. H. Gosnell, of Poe Mfg. Co., Greenville, S. C.

SEVENTEENTH FLIGHT—Steve Davis, of the Hatch Full-Fashioned Hosiery Co., Belmont, N. C., defeated, by 4 and 3, Edgar J. Powell, of the American Spinning Co., Greenville, S. C.

SALESMEN FINALS

CHAMPIONSHIP FLIGHT—Erwin Laxton, of Arnold, Hoffman & Co., defeated, by 6 and 4, Bayard Storm, of W. F. Jackson & Co.

FIRST FLIGHT—Guy Williams, of Foster Machine Co., defeated, by 4 and 2, Bill Terrell, of Terrell Machine Co.

SECOND FLIGHT—D. R. Green, of Nyanza Color & Chemical Co., defeated, by 3 and 1, C. O. Stevenson ,of Ciba Co., Inc.

THIRD FLIGHT—R. L. Winston, of American Cyanamid & Chemical Co., defeated, by 2 and 1, S. R. Lowder, of Lincolnton, N. C.

FOURTH FLIGHT—F. S. Stein, of American Cyanamid & Chemical Corp., defeated, by 1 up, Ty C. Bass, of Textile Mill Supply Co.

FIFTH FLIGHT—Joe Green, of General Dyestuff Corp., defeated, by 2 and 1, Harry G. Gurske, of New Departure Mfg. Co.

SIXTH FLIGHT—Tom Lanier, of Ediphone Co., defeated, by 4 and 3, C. L. Robinson, of American Cyanamid & Chemical Co.

SEVENTH FLIGHT—D. M. Culp, of Whitin Machine Works, defeated, by 4 and 3, Larry Taylor, of the National Ring Traveler Co.

TEAM PRIZES

The team prize was won by the National Weaving Co., of Lowell, N. C., with a low score of 305. In 1939 it was won by the American Yarn & Processing Co., and in 1940 by the Kendall Mills.

The teams and their scores were as follows:

National Weaving Co. R. F. Bumgardner, G. W. Rockett, Lester Summey and J. G. Morrow.	305
Hudson Silk Hosiery Co. Team No. 1 Frank Carter, Chas. Rape, Cecil Miller and Reid Collins.	310
American Yarn & Processing Co. J. P. Bell, Ralph Gilbert, Marshall Davenport and Harold Thomas.	321
Cramerton Hills, Team No. 1 Vernon Reese, Bert Holland, Elbert Lineberger and Leroy Reece.	327
Larkwood Silk Hosiery Co., Team No. 1 Alex Brooks, Puddin Broome, Howard Hughes and Carl Hurley.	331
Southern Bleachery & Print Works E. W. Wilson, W. C. Epps, M. L. Wilson and Herman Pyron, Jr.	333
Hudson Silk Hosiery Co., Team No. 2 H. Harris, Heath Brooks, L. Treece and D .White.	333
Kendall Mills W. M. Cooper, Geo. Waterhouse, Louis Floyd and Robt. Brown.	335
Cramerton Mills, Team No. 2 Frank Ford, Everett Siper, Jim Rotan and Jay Rotan.	344
Republic Cotton Mills, Team. No. 1 C. C. Cox, Webb Hopper, W. M. Hollis and Everett Isenberg.	347
S. Slater & Sons F. T. Roberts, W .H. Layton, A. B. McMakin and Doots Wright.	348
Knit Products Corp. Lonnie Price, Ralph Danner, Nig Lloyd and A. Metzger.	357
Hudson Silk Hosiery Co., Team No. 3 Paul Carter, Ray Carter, J. R. Baker and Grady Cobb.	359
Chadwick-Hoskins Co. C. Rhymer, Weldon Rogers, M. W. Carter and Wilbert Wood.	361
Republic Cotton Mills, Team No. 2 Jas. Hall, S. H. Gibson, R. H. Gibson and Algon Ivester.	363
Hudson Silk Hosiery Mills, Team No. 4 Bill Smith, Fritz Seifart, Allen Craig and Ted Morgan.	371
Hatch Full-Fashioned Hosiery Mills, Team No. 2 Robt. Heldman, T. J. Hunter, Steve Davis and Norman Bentley.	384
Dunean Mills Alton Hendrix, P. C. Gault, J. W. Coleman and C. H. Gosnell.	385
Larkwood Silk Hosiery Mills, Team No. 2 Thurman Hammer, Lester McHaffey, C. L. Barnhardt and Brooks Frazier.	389
Hudson Silk Hosiery Co., Team No. 5 Clarence Osborne, Paul Eby, Val Wilhelm and Lewis Scott.	390
Hatch Full-Fashioned Hosiery Mills, Team No. 1 Z. A. Ross, W. M. Blalock, M. O. Plyler and C. W. Frederick.	391
Hudson Silk Hosiery Co., Team No. 6 Hoyle Thomas, Sam Troll, Fred Crocker and Taft Garris.	400
Highland Park Mfg. Co. T. W. Church, M. L. Brackett, L. H. Pope and Earl Price.	405

DONATED PRIZES

Six of the handsome pieces of silver awarded as prizes were donated by the following firms and individuals:

Falls L .Thomason, N. Y. & N. J. Lubricant Co.

F. F. Hubach, Rayon Division, E. I. Du Pont de Nemours & Co.

B. S. Roy & Son Co.

Edward G. Connor, Foster Machine Co.

W. H. Brinkley, E. F. Houghton & Co.

L. E. Taylor, National Ring Traveler Co.

All other prizes were given by the Clark Publishing Co.

National Weaving Co. team received a replica of the American Cotton Manufacturers' Association cup and their name will be engraved on the permanent trophy.

Carl Jordan, of the Rock Hill Printing & Finishing Co., was awarded the replica of the TEXTILE BULLETIN and SOUTHERN KNITTER cup and his name will be engraved on the permanent trophy.

Textile Wages Up June 30

Washington, D. C.—A minimum wage increase of 5 cents an hour for 300,000 textile workers, the largest single group to receive raises under the Wage-Hour Law, has been announced by Gen. Philip B. Fleming, Wage-Hour Administrator.

Effective June 30th, a minimum of 37½ cents an hour must be paid in the industry. This will raise the pay of the lowest scale workers from $13 to $15 for a 40-hour week. Since October, 1939, the minimum wage has been 32½ cets.

Fleming said the new wage order would contain no provisions restricting deductions for purchases in company-owned homes, but that a Wage-Hour representative would conduct hearings in various textile centers with a view to possible amendment of the order in this respect.

Manufacturers have opposed regulation of pay deductions for such purposes, while labor spokesmen have demanded that the practice of deductions be abolished.

Officials said the following groups of workers would receive pay increases:

Cotton workers—207,000.

Textile products (sheets, pillow cases, etc.)—28,700.

Silk and rayon—47,000.

Cordage and twine—5,000.

Jute textiles—1,500.

TIME STUDY MAN

Experienced in point system and piece work wage incentive installations in cotton and woolen spinning, weaving and finishing departments. Applicants should furnish details of their experience, age, recent photograph, names of past and present employers who will not be contacted without applicant's permission. State salary desired. Location—middle South. Selection to be made at early date.

Address "Time Study Man,"
c/o Textile Bulletin.

WANTED

Mechanic with some electrical and steam experience for Textile Plant in Eastern North Carolina. State qualifications in writing, also salary expected.

Apply "Box A-17,"
c/o Textile Bulletin.

WANTED—Competent, and strictly sober, cloth room overseer, for mill located in North Georgia, having 550 looms on fine sheetings and specialties. Give age, experience, and full references, in your first letter. Address "Box J-58," c/o Textile Bulletin.

POSITION WANTED—Overseer or Assistant Overseer of Carding by efficient young married man of wide experience. Good habits. Can manage help. High school and I. C. S. graduate. References. Address "Efficient," c/o Textile Bulletin.

WANTED—Position as master mechanic; 15 years' experience as same. Thoroughly familiar with steam or electric drive; machine shop work, repairing, upkeep, installation of mill machinery and power plant equipment. Address "M. M.," c/o Textile Bulletin.

LARGE PRIZE-WINNING CHRYSANTHEMUMS, Silver Wedding White, Golden Glow Yellow, Hinson Lavender, Martha Marie Pink, Bronze, Cream, Variegated. 25 plants, $1.35; 60, $2.65. All colors, button and daisy type: 20 plants, $1.00. Red Verbena, 45c doz.; Red Spider Lilies, 50c doz.; Blue Violet, 20c doz.; Chasta Daisies, 30c doz; fine Yard Fern, 20c doz. Silver Floral Garden, Rt. 5, Cuthbert, Ga.

POSITION WANTED as Overseer or Shift Foreman in Twisting and Winding. Can furnish good references; am 38 years old; sober; member of church. Familiar with all types Twisting, Spooling, Winding, Warping, and Card Weaving. Address "J. C. D.," c/o Textile Bulletin.

Rayon Machinery Sold To Mexicans

Hampton Co., Easthampton, Mass., has completed negotiations for the sale of the machinery and entire equipment used by it for the production of viscose process rayon, it was made known. This equipment, which has been shut down for the past two years, has been bought by Mexican interests for the first rayon yarn plant to be located in Mexico.

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American Rubber Industry Uses 10% Of All Cotton

During the period from May 16th-24th, 150,000 retail stores throughout the nation displayed posters, dress their windows and heap their counters with attractive new cotton products in observance of the eleventh annual observance of National Cotton Week.

Included among these thousands of stores which will be supporting the event will be the retail outlets of the rubber industry, according to Charles K. Everett, director of merchandising of the Cotton-Textile Institute, co-sponsors of Cotton Week with the National Cotton Council.

Manufacturers are actively co-operating and extending recognition to the event in their network radio broadcasts, newspaper advertisements and in special merchandising offers during this period, says this official of the Institute.

"Surprising as this may seem to some," said Mr. Everett, "this development is both logical and natural. In 1940, the American rubber industry used 870,000 bales of cotton; a little more than 10 per cent of total domestic consumption. Thus, every week is a big Cotton Week in the rubber industry."

Referring to a recent survey of cotton consumption by the rubber industry, Mr. Everett pointed out that the greatest volume use of cotton by the rubber manufacturers was in the tire-making division of the industry. According to the Institute, 356,000,000 pounds, or 712,000 bales, were consumed. This was used in the fabrication of improved cotton tire fabric which mainly account for the strength and long life of modern rubber tires.

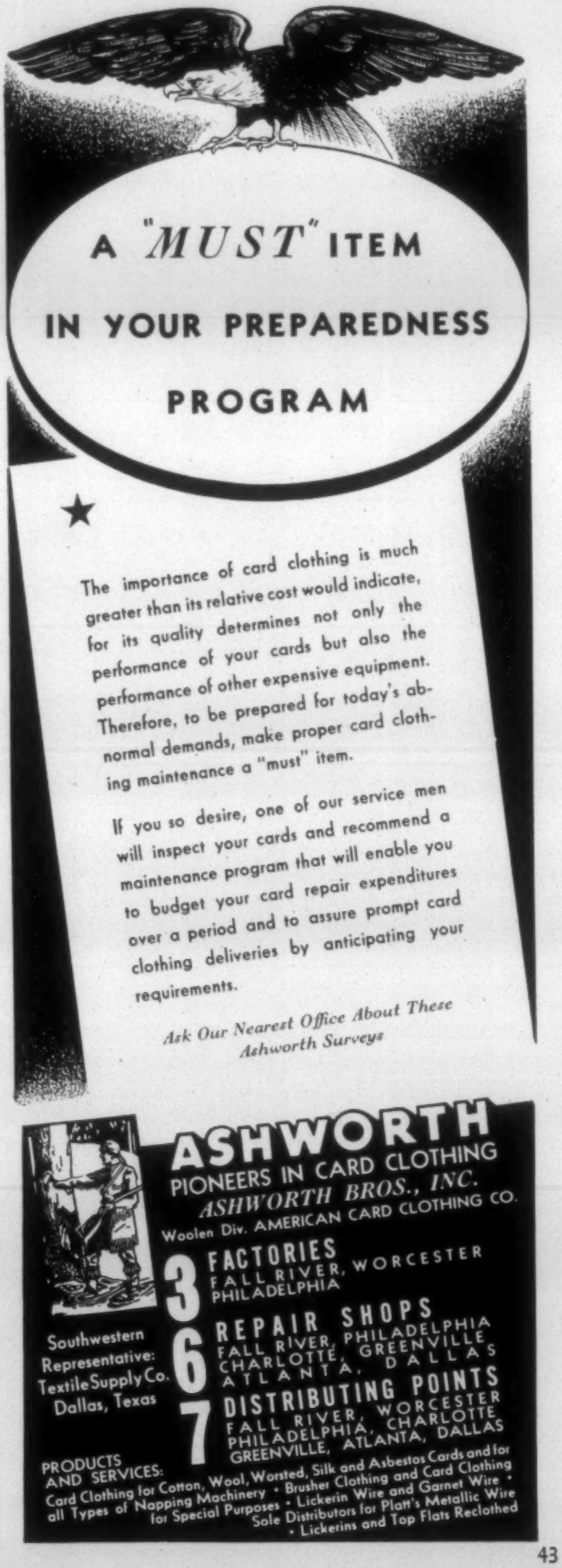
The manufacture of mechanical rubber goods used up 39,000,000 pounds, going into power and conveyor belts, fan belts, garden, hydaulic, oil, air and other types of hose, rubber mats and sundry articles.

During recent years, the once popular canvas-topped, rubber-soled "sneaker" has evolved into cleverly designed and attractively styled sports and play shoes. In attaining a pea kof popularity in 1940, they together with rubbers, gaiters and work boots, accounted for the use of 13,000,000 pounds, or 26,000 bales of raw cotton, the Institute figures show.

Large quantities of cotton fabric, amounting to 39,000,000 pounds of raw cotton, were rubberized and used as automobile top material, tire covers, hospital sheets, rainwear and weather-protecting materials.

All-Glass Tape Introduced

Fibre glass adhesive tape, with a pressure-sensitive coating, has been developed by the Industrial Tape Corp., of New Brunswick, N. J., using woven glass textile backing as developed in recent years by the glass companies and finding increasing uses in many industries. Devising a suitable adhesive coating and a method of applying it has presented a problem heretofore, it is declared, and research was instituted by Industrial Tape Corp. at the request of a group anxious to use glass fibre, in the form of a pressure-sensitive tape, as pipe insulation in various industrial fields. The tape is made in rolls in the full width of 40 inches and then cut into desired widths, as paper-backed and cloth-backed tapes are cut. It is cut by the consumer and applied as other adhesive tape.—*Manufacturers Record.*



A "*MUST*" ITEM

IN YOUR PREPAREDNESS

PROGRAM

★

The importance of card clothing is much greater than its relative cost would indicate, for its quality determines not only the performance of your cards but also the performance of other expensive equipment. Therefore, to be prepared for today's abnormal demands, make proper card clothing maintenance a "must" item.

If you so desire, one of our service men will inspect your cards and recommend a maintenance program that will enable you to budget your card repair expenditures over a period and to assure prompt card clothing deliveries by anticipating your requirements.

Ask Our Nearest Office About These Ashworth Surveys

ASHWORTH
PIONEERS IN CARD CLOTHING
ASHWORTH BROS., INC.
Woolen Div. AMERICAN CARD CLOTHING CO.

3 FACTORIES
FALL RIVER, WORCESTER
PHILADELPHIA

6 REPAIR SHOPS
FALL RIVER, PHILADELPHIA
CHARLOTTE, GREENVILLE
ATLANTA, DALLAS

7 DISTRIBUTING POINTS
FALL RIVER, WORCESTER
PHILADELPHIA, CHARLOTTE
GREENVILLE, ATLANTA, DALLAS

Southwestern
Representative:
Textile Supply Co.
Dallas, Texas

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Card Clothing for Cotton, Wool, Worsted, Silk and Asbestos Cards and for all Types of Napping Machinery • Brusher Clothing and Card Clothing for Special Purposes • Lickerin Wire and Garnet Wire • Sole Distributors for Platt's Metallic Wire • Lickerins and Top Flats Reclothed

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LOOM HARNESSES
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G

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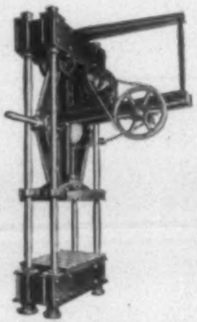

Motor Drive, Silent Chain, Center of Screw.

Push Button Control—Reversing Switch with limit stops up and down.

Self contained. Set anywhere you can run a wire.

Our Catalogue sent on request will tell you more about them.

Dunning & Boschert Press Co., Inc.
328 West Water St. SYRACUSE, N. Y.

RUBBER COVERED ROLLS
All Types for Textile Finishing
Rubber Tank Lining
Carolina Rubber Hose Co.
TELEPHONE 1108 SALISBURY, N. C.

VELVAK
Belt Lubricant
CLEANS, SOFTENS, PRESERVES AND WATER-PROOFS BELTS
INSURES 100% POWER TRANSMISSION
CONTAINS NO GUM OR PITCH
FULBRIGHT LABORATORIES, Inc.
Offices, Latta Arcade CHARLOTTE, N. C.

The Function of a Testing Laboratory in a Textile Mill

(*Continued from Page 24*)

Twice a week all widths of all styles from the looms come to the laboratory in the grey for a check for width, weight, sley, pick, breaks and size content. After every loom change the resulting loom product is checked before the loom is released for production. On blends weekly checks are run on fiber content. Finished goods are checked and with the growth of informative labeling the laboratory work ties in closely with the data given on the merchandise.

Eastern Carolina Group Discusses Mill Problems

(*Continued from Page 20*)

for some financial assistance from the State; and, again, the representatives who determine our appropriations, on which we must base our policy and program, are your representatives. Just as the school is your school, belonging to the taxpayers of North Carolina, so the legislators are your representatives, and they listen to the folks back home.

Money spent in research is an investment. I need only cite you to the research done by the leading corporations of America to prove that fact. They believe in research. If a large corporation believes in research and finds it necessary, then small concerns should also have the benefit of research. Many concerns in North Carolina, however, are not in position or do not care to go into the field of research. In that case it is up to the State to go into the research problem in North Carolina, and this is the place for doing it. The General Assembly of 1941 was very fair to the institutiton; we had a nice increase in our appropriations all the way around. More emphasis was laid on agriculture by that body than by any other legislature in North Carolina in fifty years. That is, people who are in position to know believe that this last legislature did more for the benefit of agriculture than any other since the opening of this institution. The legislators went thoroughly into that matter, and the reason they did so was that the agricultural interests back home asked that it be done. There was a strong group in the legislature interested in agriculture and in agricultural education and agricultural extension. We did not secure any permanent improvements except for some self-liquidating projects. We should like to extend our efforts in the field of textile research and have a man in charge of that who would go out in the field and find out what your problems are, and we should then be in position to help you more than we can at the present time.

We are always glad to have meetings of this kind here at the college, because we regard them as educational meetings. It is today just as much the duty of a State institution to conduct an adult-education program as to conduct the education of the youth who comes to stay with us for four years. We have expanded the number of institutes held on the campus here and should like to do more in that field.

I mention these things, Mr. Chairman, to show you that it is not our doing or our desire that we are a little short in textile research and in men to carry out such a program. We go just as far as our financial limitations and physical resources permit.

We are happy to have you here and hope you will continue to meet with us each year. (Applause.)

Chairman: Dean Nelson, I wonder if you would not like to say a few words to us.

Thomas Nelson, Dean of the Textile School, State College of Agriculture and Engineering: As Colonel Harrelson mentioned, gentlemen, we have various institutes meeting with us, and one to be held next month will be of particular interest to you. Beginning on May 5th and continuing through May 9th we shall have a Rayon Institute in our school. There will be speakers from various sections. The first one will be Dr. Harold DeWitt Smith, of New York, who will speak on "Recent Developments in Synthetic Fibers and Fabrics." I suppose he probably knows more about synthetic fibers than any other man in this country. We shall have speakers all through that week, Monday through Friday, each morning at 9 o'clock and each afternoon at 2. We shall be very glad to have with us any of you who can possibly come.

I should like to say, on behalf of our Textile School faculty, that we are very glad to have you with us this morning and are always delighted when you come.

Mr. Gilliam: Let's go back to the textile show. What new developments or improvements in carding did you see there?

Mr. B.: I was down there for a couple of days, and I thought they had a very nice show. I don't see how any person can go down there and spend less than two days and find out what is going on.

Mr. Gilliam: I think you are right about that.

Mr. B.: One thing I noticed particularly in the carding was the system of removing the top flats on the card and putting a system of stripping rolls on there similar to those on wool cards. They used that for running mixtures of rayon and cotton or wool and cotton.

Mr. Gilliam: I think it was wool and rayon, wasn't it?

Mr. B.: At any rate, they recommended it for several mixtures but were running only one mixture at that time.

Mr. Gilliam: What was that mixture? Wasn't it 30 per cent wool and 70 per cent rayon?

Mr. B.: I do not remember exactly about those percentages, because, as I say, they recommended it for different mixtures and they probably ran different mixtures on different days. At any rate, you could see the cotton going through there, and it looked as if the wind had hold of a bunch of feathers or something like that, because it was certainly fluttering around. Rayon runs all right on regular cards, so far as I know; I know I have run it satisfactorily, but you do not get any cleaning. That is the only thing I see to it.

Mr. Gilliam: Was that card made for that particular job, for wool and rayon, or could it be used for cotton?

Mr. B: It could be used for cotton and for waste, but I see no particular reason for using it for cotton or waste, because it does not do any cleaning. The top flats are removed, and everybody knows the top flats do the cleaning.

Mr. Gilliam: Everything goes on through, then?

(*Continued on Page 48*)

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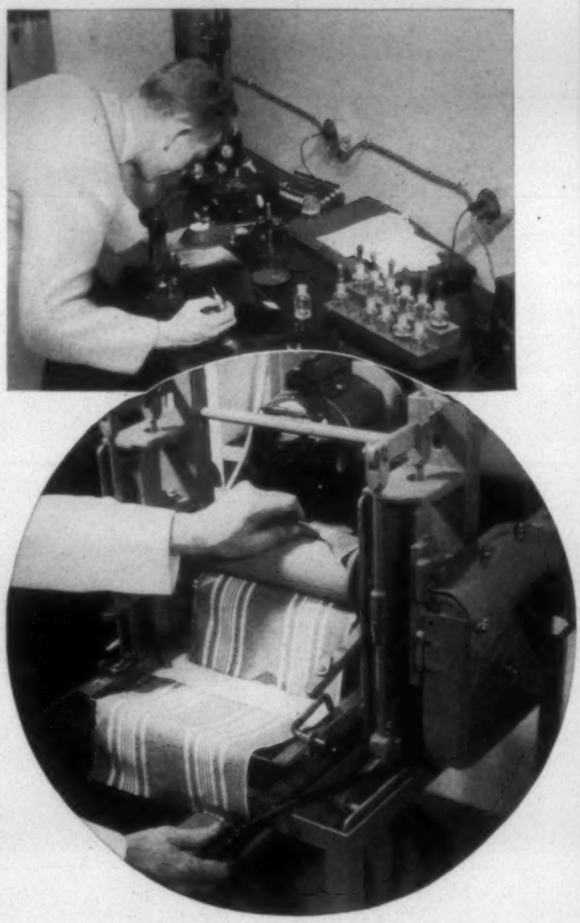

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Bahnson Co. in New and Expanded Plant

The Bahnson Co. recently began its twenty-sixth year of business in a new and expanded plant.

Since its early beginning as a manufacturer of a simple centrifugal humidifier which was used in the textile industry for humidification, The Bahnson Co. has grown to a sizeable organization which manufactures many types of industrial air conditioning equipment in its various departments.

This company is said to have one of the best equipped machine shops in the Carolinas. Numerous presses including one 100,000-pound double action press for stamping out the heaviest parts of the equipment together with modern turret lathes and die-making equipment, provide the machine shop of large capacity which is occasionally used to serve the textile mills with items that cannot be readily manufactured in their own machine shops.

All of the sheet metal work employed with Bahnson equipment is manufactured in the sheet metal department. The Bahnson Humiduct is said to enjoy the reputation of being one of the most high grade and durable pieces of air conditioning equipment on the market. The distribution duct of this equipment is customarily made of copper.

The Research Department of The Bahnson Co. recently placed on the market the new Anniversary Humiduct, which is said to be providing new economies in textile air conditioning. Aside from the economy of operation, the new Humiduct provides a flexibility which enables it to be closely tailor-made to each requirement. At the same time in the event of expansion, Humiduct equip-

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Estimate Cotton Crop At 12,566,000 Pounds

Washington, D. C.—In revising estimates of acreage yield and production of the 1940 cotton crop, the Crop Reporting Board estimated the area in cultivation in the United States on July 1, 1940, to have been 24,871,000 acres, the area harvested 23,861,000 acres, and the average yield of lint cotton 252.5 pounds per harvested acre. The production of 12,566,000 bales in 1940 is about 749,000 bales, or 6.3 per cent more than in 1939 but 7.2 per cent below average production in the period 1939-1938. Except for the year 1937, the United States average cotton yield for 1940 was the highest on record.

The acreage harvested in 1940 was approximately two-tenths of 1 per cent larger than the harvested acreage in 1939 and about 28 per cent smaller than the average harvested acreage for the 10-year period 1929-1938.

The revised estimates of planted and harvested acreages for the United States are about 1 per cent below the preliminary estimates made last December. The acreage estimates are in substantial agreement with the acreages measured by the agricultural administration. The yield per acre as estimated is about the same as the December estimate.

Forecasts of cotton production made by the board for the first of each month during the 1940 season, and comparisons with final production are as follows: August, 11,429,000 bales, 9.0 per cent below final production; September, 12,772,000 bales, 1.6 per cent above; October, 12,741,000 bales, 1.4 per cent above; November, 12,847,000 bales, 2.2 per cent above; December, 12,686,000 bales, 1.0 per cent above final production.

The forecasts during the season are necessarily based upon indications at the time the reports are prepared, and upon the assumption that weather conditions after that time will be about average. The 1940 crop started off very late and continued late during the entire season. During August the influences affecting growth were unusually favorable and, as a result, the condition of the crop improved more during August than in any year of record. In the area from Georgia to Texas, however, serious losses were caused by an unusually early freeze which occurred during the middle of November.

The final estimates of cotton production by States represents the total ginnings reported by the Bureau of the Census with allowance for interstate movement of seed cotton for ginning. The report of that bureau published on May 21st placed the final ginnings for the 1940 crop at 12,564,640 equivalent 500-pound bales.

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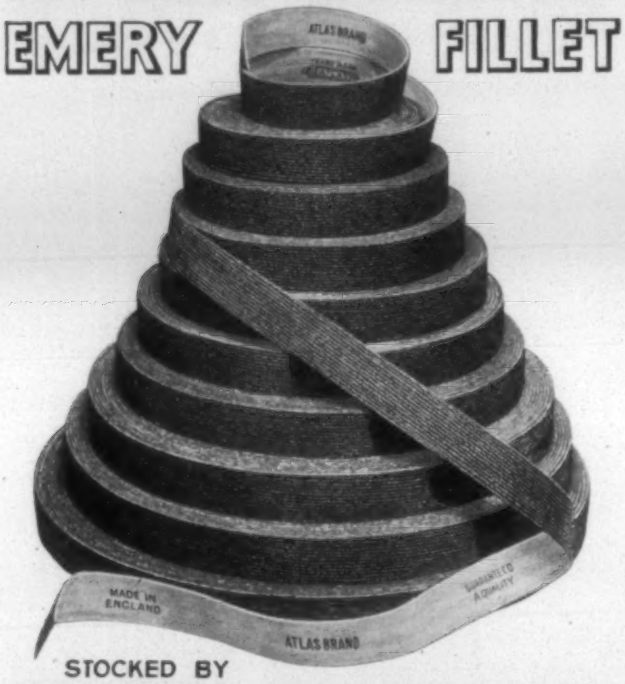

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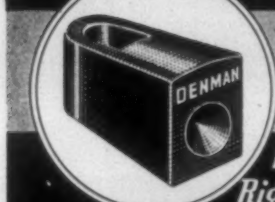

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The Function of a Testing Laboratory in a

(*Continued from Page 45*)

Mr. B.: Yes, sir.

Mr. Gilliam: Mr. D, did you go to the Exposition?

Mr. D.: Yes, sir.

Mr. Gilliam: Would you care to say a little about your observations?

Mr. D.: Mr. Chairman, I think that the thing that appealed to me more than anything else was the flexibility that I noticed in the spinning.

Double Roll Traverse Grinder

Mr. I.: I was interested in that double roll traverse grinder, which overlaps five inches on the cylinder. It is a double roll and goes across and comes back. I should like to know if anyone here is using that particular type of grinder.

Mr. Gilliam: Does anyone have that? (No response.) It seems to be something new, Mr. I.

Chairman Miley: I don't have that, but I have seen a double grinder for top flats.

Mr. Gilliam: That was something new to you, wasn't it, Mr. I?

Mr. I.: I had read about it but had not seen it before.

Mr. Gilliam: What were the claims for it?

Mr. I.: That you get twice the amount of grinding on your cylinder.

Mr. Gilliam: It grinds the card more quickly?

Mr. I.: Yes, sir.

Mr. Gilliam: And so keeps the card out of production a shorter time?

Mr. I: Yes, sir, that is right.

Mr. F.: I saw that roller and was very much impressed by it. I feel that with the two traverses going back and forward, overlapping one another, there might be some reason for not grinding a straight line. I do not believe it is possible to grind a straight line from one end of the cylinder to the other. If it does, I should like very much to have it. The single roller would do the same amount of grinding on the doffer that this double roller would do on the cylinder in the same length of time. In other words, the outer teeth in each one would get the same number of grindings by having this double roller on the cylinder. I should like to know if anyone has any idea about whether this thing grinds straight across.

Chairman Miley: Mr. F, where this grinder overlaps, do you get more grinding there?

Mr. F.: The overlap is three-quarters of an inch in the center. That is what makes me skeptical of that.

Mr. Miley: In other words, you get more grinding at the point where it overlaps.

Mr. F.: They say that they had three inches overlap at first and found that would not work. They claim that with three-quarters of an inch it will be all right, but I am still doubtful about it.

Mr. M.: I saw that thing and was very much impressed with it. I should like to have one of them.

Mr. Gilliam: What would be your opinion as to that grinding in the center?

Mr. M.: I think those two rollers there would give the same amount of grinding as you get on the doffer with a single roller.

Mr. Gilliam: What about Mr. F's suggestion that you might get too much grinding there in the center?

Mr. M.: I don't think you would. I don't believe there is enough there; I don't believe it would leave a hollow place.

Mr. F.: I might say this; I talked to a man down there, and he says that if there were not this overlap there it would leave a high place, and if it overlaps too much you would grind out a hollow place. Another thing; you probably could grind the card once or twice with this roller and, if it does have a tendency to throw the card out .001 or .002 or .003 inch, you could use the regular traverse grinder on there to straighten it up. I think it is a wonderful thing if it works.

Mr. A.: Something was said about using this grinder on the top flats. That is a mistake. They do not recommend it for that. There is a type of grinder for the flats that another company makes.

Mr. Gilliam: Not the old solid grinder?

Mr. A.: No, not the drum grinder.

Mr. Miley: Is that a grinder especially designed for the top flats, Mr. A?

Mr. A.: Yes, sir. We have one of them, and it does very good work. I believe it sharpens the flats better than anything else I have ever seen. It is so constructed that it works much faster than the traverse grinder.

Mr. Gilliam: That flat, I suppose, has a device that brings it up against it?

Mr. A.: Yes, it turns the face of it just as in the regular grinding.

Mr. Gilliam: Does anyone want to ask any questions about that? If not, let's go on to the drawing and roving. Mr. B, will you give us your observations on the roving and drawing down there?

Double Sliver Drawing

Mr. B.: I do not know whether I can explain it or not, but they had a drawing frame down there putting two ends in one can. I believe they had eight ends up at the back, coming through, and there was a knife at the front where that split that web.

Mr. Gilliam: How far from the trumpet was that knife?

A Member: About five inches.

Mr. B.: I don't remember exactly how many inches it was, but at any rate it split that web and divided it into two parts.

Mr. Gilliam: It went into two trumpets?

Mr. B.: Yes, sir, two trumpets, and those two ends were coiled in the same can. To keep from twisting the two together, instead of the can's revolving it was sitting

(*Continued on Page 57*)

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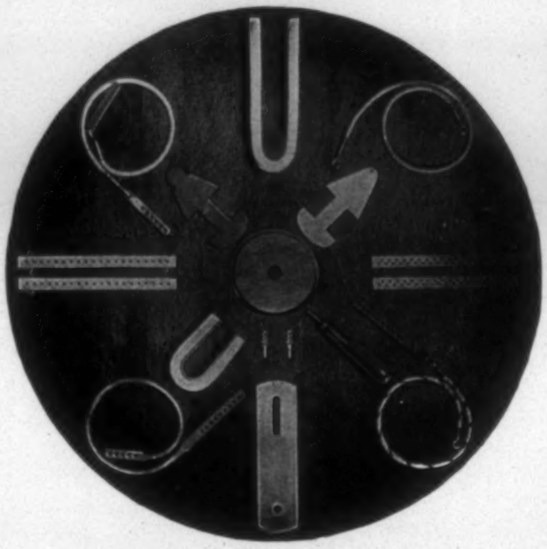

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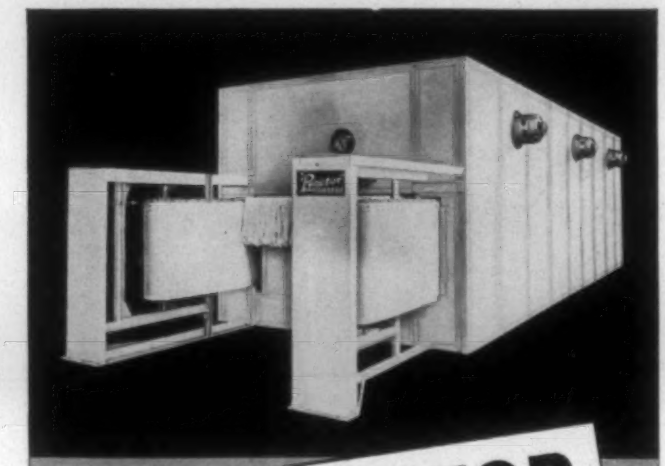

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24 Textile Graduates At Georgia Tech

Commencement exercises at the Georgia School of Technology were held on June 8 and 9, 1941.

The commencement sermon was preached by Dr. Hyland Knight, pastor, Second-Ponce de Leon Baptist Church, Atlanta, Ga.

The graduating exercises took place in the Auditorium-Armory on the morning of June 9th. Hon. James M. Cox, ex-Governor of Ohio, was the speaker on this occasion. Those to receive degrees in textile engineering are as follows:

Morris Marion Bryan, Jr., Hugh Sydnor Burnes, Abe Young Carmical, Edgar Vernon, Carter, Jr., Robert Puette Cochran, Jr., Madison Filmore Cole, James Allen Corbitt, James Barron Curley, Richard Eyre Forrest, Herbert Kaufman Fuller, William Claude Gibson, Jr., David Downing Hamilton, Arthur Marvin Herron, Bryan Burdette Mitchell, Charles Mace Morris, Jack Daniel Motlow, Jr., John LaWall Nisbet, Charles Henderson Ponder, Benajah Leroy Rainey, Monroe Jerome Smith, Jr., James Frank Stovall, Jr., Robert Franklin Tillman, John Gregory Whitaker, Meadow Seifert Williams, Jr.

On honor day, May 2nd, two medals were presented to members of this class, as follows:

David Downing Hamilton received the medal offered by the National Association of Cotton Manufacturers for the highest scholastic average through the first term senior year.

Madison Filmore Cole received the medal offered by the Cotton Manufacturers Association of Georgia to the student with a high scholastic average who shows a special aptitude for textile work.

Norris Medal Awarded To Ross

The Norris Medal, which is awarded each year to the senior at Clemson College making the highest all-round record for his four years at Clemson, this year was presented to DeWitt Javan Ross, of West Columbia, S. C. Mr. Ross majored in textile engineering and has accepted a position with E. I. du Pont de Nemours & Co. In addition to making an outstanding scholastic record, he took part in many student activities and was Cadet Colonel during his senior year. This medal was presented to Mr. Ross by President R. F. Poole at the graduating exercises on Monday evening, June 2nd.

Atlanta Prison Plant Goes on Two Shifts

Atlanta, Ga.—Inmates of the Atlanta Federal Penitentiary will now work two eight-hour shifts a day in the prison spinning mill as their contribution to the national preparedness effort.

Speaking to more than 1,000 industrial workers assembled in the prison's open air stadium, Warden Joseph Sanford was applauded by the prisoners when he asked their co-operationo "as Americans" in doubling the institution's output for the armed forces.

The warden explained that increases in pay would be granted and that the working schedules would be so arranged that none of the men need sacrifice his school, library or recreational periods as a result of the additional shift in the spinning mill.

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WANTED—Position as overseer of cloth room; 30 years' experience. Am above draft age and strictly sober. References furnished on request. Address "Experienced," c/o Textile Bulletin.

WANTED—Position as roller coverer and belt man; 25 years' experience. Can furnish the best of references; also start work at once. Address "Roller Coverer," c/o Textile Bulletin.

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Development of the Rayon Industry From the Viewpoint of the Practical Mill Man

(*Continued from Page 15*)

ently ridiculous figure of a few hundredths of a cent per yard, yet if we consider an alert organization, which is able through good management and efficient manufacturing methods, or by the installation of more modern machinery to save 1/100 of a cent here and there, it may gradually reach the enormous figure of a quarter of a cent a yard. It does not take a great amount of figuring to calculate that on a production of a million yards weekly, the saving of a quarter of a cent per yard is an appreciable item, amounting to more than $2,500 per week, of approximately $125,000 yearly. Neither is it an easy task to accomplish such a reduction as ¼c per yard because the cost of each individual operation is so low today that a saving of 5 or 10% means only the smallest fraction of a cent because the basic cost has already been brought down to such a marked degree. Many cloths which ten years ago were woven on non-automatic looms at 6 to 7c per yard for weavers' wages, have come down under the automatic multiple loom high efficiency systems to less than ½c per yard and again I repeat it is with less effort on the part of the employees and with a weekly wage in excess of that which prevailed ten years ago. It is a matter of common record that fabrics which ten years ago sold in the raw at 35c are selling today at less than 20 and other dress fabrics which I have in mind which sold as recently as only four years ago at 33c and 34c are now selling at 24c and 25c.

One might thing that with such reductions in cost of manufacturing that we were pretty lax ten or even five years ago if there was such a leeway to bring down costs but such is an erroneous idea. We cannot be too far ahead of the times. Manufacturers with their backs to the wall were forced to develop new ideas, new methods, new machinery, short cuts, better yarns, in order to meet the ever-decreasing competitive prices. Success today is built as I said before upon cost, production, and volume; volume is of course part of "cost" because when we mention the word "cost," it automatically covers "volume" because without volume we could not decrease cost. Scientific management is vital to success. No longer is there any guesswork in calculating the cost of a fabric. Estimates and calculations of course have to be made but departmental budgets have to be checked weekly to see that the department lives within its budget and executes its maximum production with minimum cost. In the old days we were not so conscious of these elements as we are today. Customers are very critical of our product. No two synthetic yarns from different sources of supply have the exact same physical characteristics, and the selection of proper types of yarns for each type of fabric is a study requiring much research and experience. Facts have been established within the last few years under scientific research that show that every yarn has to be soaked and treated according to its own peculiar physical characteristics. Formulas have to be revised for each different type of yarn according to its physical properties, luster, filament count, etc.

Once the proper chemical formulas are established to fit each particular yarn to attain a proper pebble, hand and appearance, organization and training of help become an important part of successful operation. Temperatures in soaking, methods of handling the yarn when putting it in the extractor, time element of extracting, wet and dry bulb temperatures in drying, time element between operations, mill humidity, not only have to be studied and results ascertained but with these operations going on hourly, daily, and weekly, the personnel must be so trained that these human elements are maintained uniformly to insure a flow of even and perfect merchandise to the customer. Methods in soaking, drying, time elements, temperatures, humidity, speeds, tensions, size of spools, warping, winding, and a hundred other factors, all have a bearing on the physical properties of the yarn and reflect themselves in the finished fabrics; during all proc-

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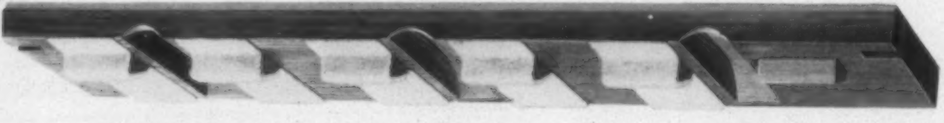

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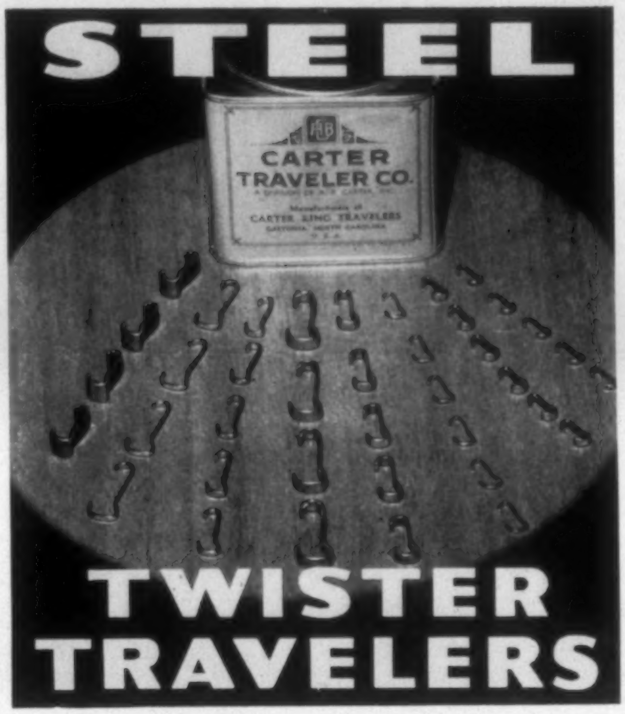
esses of manufacturing, and between all operations there is of course constant testing and checking as the production passes through its various stages, to make sure there is the desired uniformity and perfection, then finally when all this is accomplished in an effort to reach a proper degree of perfection, we make the final inspection of the woven cloth. One would think that an 80-yard piece of goods was almost a a living thing, the way it is inspected before it leaves the premises for dyeing. Its pedigree is taken and listed, every inperfection numbering more than 25 different types is carefully listed on the stub, each is scientifically calculated by a point system and the piece is penalized for every single defect no matter how small, and notation is made of where they are and how they will look in the finished fabric and if the total imperfection points against the piece exceed a given number, the piece is unqualifiedly laid aside and shipped as a second. If a piece is returned by a customer, the piece number is referred to and the record is taken out for comparison. The piece is returned to the plant for inspection, it is gone over and discussed in an effort to eliminate any further recurrence of returns. Goods are spot checked and re-inspected by a special department to be sure that the original standards of grading are being maintained. While cost is fundamental to the success of a plant, perfection is just as important and is the dilemma and bugbear of every mill man. Every cloth presents a new problem so you can see the battle to successfully operate at a competitive cost and establish, and maintain a satisfactory reputation for perfection is the ever-present problem of the cloth manufacturer. All the above is possible only through co-ordination and understanding of our mutual problems between yarn manufacturer, machinery manufacturer and cloth manufacturer. Rayon fabrics are now the volume style of the day. We have lived down the prejudice of the old days when our product was known as "wood silk" or "artificial silk." We have enabled the dress manufacturer to place the finished garment in the hands of the retailer at prices within the reach of all. We have changed the feminine idea of buying. Our grandmothers would buy, if times were prosperous, a dress or two a year—the consumptiton of dress goods was not great in the old days because dress fabrics were so expensive, it involved expensive manufacturing methods and complicated skein dyeing and weighting problems. We have seen our ladies of today reach the stage where they must have a new dress every little while to keep abreast of the latest ever changing fashions. The unit volume of dress sales has probably increased a hundred fold in the last 20 years. The dresses of today are so well styled and made of such beautiful fabrics that the feminine taste cannot resist. We have seen rayon become popular in underwear, slips, dresses and many other outlets that were unknown a few years ago. We have seen it adopted for evening wear as well—not to speak of the many uses in the men's wear field who in recent years have adopted the synthetic fabrics and blends for both inner and outer wear, until we have reached that point today where the volume both of yarn and woven fabrics has reached staggering proportions.

Acetate

All the foregoing remarks and history have pertained

(*Continued on page 56*)



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Cotton Goods Markets

New York.—Price advances have been made in some coarse yarn gray cloths. Spot 38½-inch 60x48s print cloths have moved up to 7⅜c as compared with sales into late months at down to 7c. For spots of 100x60s broadcloth 11¼c was paid as of June 14th and most of the previous low range of prices were withdrawn, so that the market was actually higher as a result. There have been similar revisions in the narrow sheeting section, the easier side to price ranges being dropped, thereby raising the general list fractionally on most styles.

Most of what buyers are seeking is for spot, early and nearby months. Their attempts to find sought for yardage have been repeatedly unsuccessful, mills reporting a too heavily sold condition. There has been a fair volume of business recently for sheetings. Buyers who came in for convertibles of all kinds, from drills, sateens, twills to other goods, found offerings relatively scarce. For spots and nearby deliveries they repeatedly paid more than was necessary earlier.

In the combed goods section further price advances were made. Some of these were sharper than those made before. It was reported that those who specialize in lawns were called to Washington recently where they were in conference with War Department officials. The visits were for the purpose of learning what production and how soon it could be diverted to making up the cloth for the changed construction of powder bags. It was ascertained that the quantities to be produced are sufficient to take up the production of a good sized combed yarn cloth mill. In the long run the quantity is expected to represent nothing of a size to threaten regular users of their regular supplies.

Price advances have been made in a number of quarters on finished staple cotton goods. Most of these were fractional increases, sometimes representing adjustments to competitive levels and otherwise moves over what has been asked so far. The direction of the price movement is higher, to all appearances, buyers conclude. Since they hardly expect reductions on a market increasingly tight for deliveries the only alternative is to anticipate firmer values. There are buyers who have sought to cover at the advances, just to be certain of being provided with goods into the early fall months. Occasionally mills have felt encouraged to sell a little more distantly, where so far they have not put out definite offerings beyond September.

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Cotton Yarn Markets

Philadelphia.—Spinners are still much concerned with the ceiling placed on combed yarns by the OPACS. They feel that in addition to not taking into consideration the various recent increases in costs with which the mills are faced the ceiling does not allow sufficiently for possible fluctuations in raw cotton prices.

All types of supplies, including raw cotton, are likely to continue to rise in price, according to every estimate, and the increase to the 37.5 cent minimum on June 30th will certainly mean a considerable increase in labor cost. Possible results of this increased cost with the fixed ceiling on sales of yarns may be the reduction of third shift and overtime production and the fixing of running schedules on most efficient time.

In actual trading in the local cotton yarn market, ply carded weaving yarns now seem to have settled down to a basis of 43 cents for 30s/2 ordinary grade. In some quarters though, ordinary yarn is still being nominally held for 45 cents and better quality (plush grade) at up to 47 cents.

Single skeins and warps are quoted by some at the same prices as two-ply, and single weaving yarns are reported held by some suppliers for higher prices than OPACS permits for single combed. Some of the better known mills making extra quality carded knitting yarns have booked orders lately at lower prices than are nominally being quoted for ordinary carded single skeins and warps.

This condition is thought to be caused partly by OPACS fixing a maximum range for one group of sale yarn and leaving other groups to conform automatically. On the other hand, some buyers point out that the mercerizers promptly conformed their quotations to the OPACS range for combed counts, though they were under no compulsion to do so. Some observers here have gotten the impression that there may be interests in the industry that count on OPACS eventually having to place ceilings all along the line and that, meanwhile, are content to stand aside and see what happens.

In some quarters, the rise in cotton and the prospective higher wage basis in the cotton industry are cited as justifying sale yarn rates even above those prevailing prior to the OPACS ceiling for combed yarn. But others point out that these higher costs were amply discounted during the yarn price advance a month ago.

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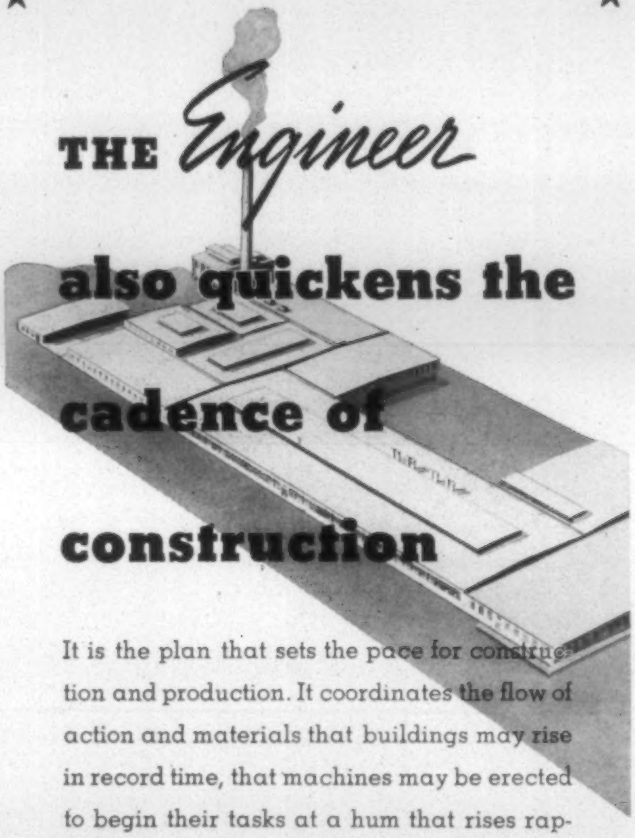

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Development of the Rayon Industry From the Viewpoint of the Practical Mill Man

(*Continued from Page 53*)

principally to rayon but let us just for a moment give a brief history of the acetate yarns in use today. As many of you no doubt know, acetate did not come into use until after the close of World War No. 1, or less than 25 years ago. It was originally made in England as a solution for aeroplane wings and when the war was over experiments were carried on to try to spin the solution into a yarn. From the start the yarn looked to have great possibilities although much experimentation remained to be done. The product was difficult to size and slash and even more difficult to dye and it took several years of disappointments and research until dyestuffs were developed that would give a full range of colors. However, in terms of years, the progress made with the acetate yarn was fast and furious. During the first four or five years of its existence the development was rapid and it was quickly accepted by the trade and more quickly brought to a stage of commercial perfection than rayon, even though it required pioneering in the method of manufacture of the thread itself, as well as the development of the chemistry of dyeing, the manufacture of suitable dyestuffs and the necessary problems which the manufacturer of the cloth had to quickly solve in order to properly weave it into a fabric. We should remember that while rayon is a fibre developed during the last 30 years, acetate was perfected and came into popularity approximately 12 years later. While the production of acetate is not yet as great in pounds as it is in rayon, it has made terrific gains in usage and popularity on account of its physical characteristics. Many popular fabrics have been created because when combined with rayon it offers great possibilities of cross dyeing as well as in solid colors fabrics where it

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Mexico Turns To Japan For Rayon Imports

Mexico City.—Minister of National Economy Javier Gaxiola reported recently that Mexico was unable to obtain rayon in the United States or Italy because of war conditions and therefore was negotiating with a Japanese firm.

He said an adequate supply was being sought to prevent paralyzing the nation's textile industry.

United States defense preparations, he said, prevented rayon exports. Japan also has been found reluctant to guarantee any large shipments.

Find Lancashire Mills Now Have More Spindles

Manchester, Eng.—Notwithstanding Lancashire's expensive efforts to purchase and scrap redundant spindles, "Lancashire Textile Industry," the annual handbook published by John Worrall of Oldham, surprisingly shows an increase for the current year. Today there are 38,259,788 spindles, compared to 38,073,868 spindles last year. Thirteen mill towns, including Manchester, Salford and Middletown show an aggregate increase of 389,277 spindles. Nine towns, including Bolton, show an aggregate decrease of 167,357.

In 1936 when the scheme for scrapping redundant spindles began the total of Lancashire spindles was 44,634,357.

There has been a similar increase in the number of looms during the past year. The total now is 446,683, compared to 441,065 last year. Twenty years ago Lancashire had about 79,000 looms.

gives the wanted luster, hand, and appearance. Its use further extended the range of synthetic fabrics because it opened up new horizons when combined with rayon or used alone in solid acetate fabrics. Some of the most popular fabrics of the day are composed completely of this acetate yarn while still other volume numbers are made by twisting acetate and rayon together in a loose combination thereby gaining an effect that could not have been obtained otherwise.

Virginia Amends Viscose Authority

Roanoke, Va.—The State Corporation Commission of Virginia has issued an amendment to the American Viscose Corp., a Delaware concern, authorized to do business in Virginia, reducing its maximum authorized capital stock from 100 million dollars to $53,194,000. The Corporation Trust Co., 120 Broadway, filed the amendment at Richmond.

Burlington Mills Nets $1,517,707 in Six Months To March 29

Burlington Mills Corp. reports net profit, after estimated excess profits tax, of $1,517,707 for the six months ended March 29th. The amount is equal to $2.20 per share on 659.216 shares of common stock after dividend requirements on the $2.75 series of cumulative convertible preferred stock.

No comparable statement was issued last year, the company reporting instead for the six months ended June 30, 1940, during which period it earned $1,277,708 after provisions for Federal and State taxes and icluding reserve for estimated taxes. That was equal to $2.05 per share on 624,757 shares of common stock.

Ready for Renewed Campaign for Cotton Bag Containers

Memphis, Tenn.—Inaugurating a new campaign for increased use of cotton bags, the National Cotton Council and the Cotton-Textile Institute have announced that shortly they will release to all newspapers in the United States and its territorial possessions a third series of the household hints, "Saving Money With Cotton Bags."

The National Cotton Council said that the aim of the newspaper campaign would be to create a greater consumer demand for goods packaged in cotton bags. Such staple items as flour, sugar, salt, feeds and fertilizer were cited particularly.

Eastern Carolina Group Discusses Mill Problems

(*Continued from Page 49*)

on a solid plate, and the plate oscillated. In that way it put it in the can without twisting the two together, so when it comes out it will come out at the back of the slubber all right.

Mr. Gilliam: I suppose the intention was to save cans and floor space?

Mr. B.: So far as I can see that is the only thing you would gain by it—a saving in cans and in space. You

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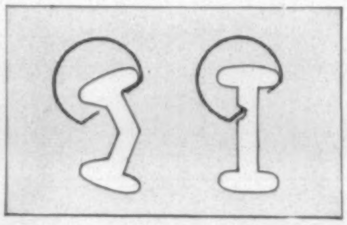

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would have to creel oftener.

Mr. Gilliam: Wouldn't you have more piecing, because you creel more?

Mr. B.: You would still have the same number.

Mr. Gilliam: You would creel oftener?

Mr. B.: Yes, sir—that is to say, you would on the finisher drawing. Of course, the breaker drawing is just like the regular drawing.

Mr. Royal: What about the sliver weights on that? Do you remember the weight of the two slivers, Mr. H?

Mr. B.: I don't remember about that.

Mr. Gilliam: It would have to be the equivalent of what is going in the slubber.

Mr. B.: Of course, as I said, there are eight ends up and they have four going into one. Normally we have six, so we eliminate two ends of doubling there for evenness. Whether it evens up or not I do not know. I don't know whether they recommend it for metallic rolls or not; I cannot say about that.

Mr. H.: I talked with the machine builder about that thing. The best I can figure why they brought that out is what Mr. B started to say about the metallic rolls. It would not do so much for us, because we run seven ends up on the back and six on the front, to get the weight. He did argue that it would not take as many cans and that it would take up less room, but, as was just said, you have to creel twice as often.

Mr. Gilliam: On your breaker drawing you would have to have a much heavier sliver in order to get the required weight?

Mr. L.: I was over in Mr. E's and Mr. D's card room some time ago and saw some great long tails out of the cans. I did not understand it and at first thought somebody just failed to put them in there. Pretty soon I saw they were all that way and saw there was some reason for it; the tails were to piece on and so to have the pieces. I thought it was a fine idea and went and tried it. Well, we did not have sense enough to do it, and the boys did not like it, so we quit it for a while. Our roving is pretty heavy; we make 63-grain roving, and that is pretty heavy. I should not want this drawing frame in our mill.

Mr. Gilliam: Mr. D, will you explain those tails on your cans?

Mr. D.: We operate that can on the same principle you would a magazine creel; we splice on to the can and never stop.

Mr. Gilliam: I expect we had better go on to the next subject, which is spinning and winding. Mr. N, did you go to the show?

Mr. N.: Yes, sir.

Mr. Gilliam: I wonder if you could give us some of your observations on the spinning that you saw there.

Mr. N.: I did not see any great improvement in spinning. I did see a ball-bearing top roll that I would like to have, but other than that I did not see any particular improvement.

Mr. Gilliam: You think it was the same thing we have been having for the last few years?

Mr. N.: Yes, sir. As to winding, I saw a winder that impressed me. I saw the conventional winder, winding rayon and cotton and everything on there and did not see any advantage in it at all, but on the circulating winder I did. I liked that winder pretty well.

Mr. Gilliam: I have heard a good many comments on the fact that so many ends ran by the operator.

Mr. N.: Well, a few ends do run by the operator. But you can change your gears and change the speed of the winder to fit the operator, or speed the operator to fit the winder. You would have to do one or the other. I saw that girl there, and everybody was talking to her and not bothering her. They have made an improvement. I experimented with one of those winders for about a year several years ago, and this one is quite an improvement. We had to use two girls on that; we had one at each end.

Mr. Gilliam: I was talking to one man that had some of these circulating winders, and he said he had in mind putting a spare hand on there to catch those ends.

Mr. N.: If it were I, I would cut the work down and let the girl operate it.

Mr. Royal: Don't the advantages of a particular machine depend upon the set-up of the plant? In other words, wouldn't a plant running 10s to 40s need a different winder from one making only 40s? And wouldn't the range of colors affect it, also?

Mr. Gilliam: Well, ordinary fellows like Mr. D and myself, just running ordinary yarns, do not know much about colors.

Mr. A, what did you think about that winder?

Mr. A.: I did not pay much attention to it. On the conventional winder they had a piece of wax that seemed to take some of the tension off. It had some kind of liquid in it, too. They had several attachments on that conventional winder.

Mr. O.: I was down at Greenville and spent considerable time looking at the circulating winder. I did not see any particular improvements they have made in the last few years. We have five of them, with eight people working on the five, and they had three people working on one. I think they had especially prepared yarn down there. They did not have super draft. Their machines were new and looked pretty, but I don't think they were any better than ours would be if we stopped off long enough to clean up.

Will you tell us now, Mr. D, what you think about the winding and spooling that you saw at the Exposition?

Mr. D.: We fellows who are on conventional draft have had a lot of trouble in the last few years. The cotton has changed, you know. You fellows with long draft do not have so much trouble, but we have to set out rolls this week and then change next week. This machine down there was so flexible it appealed to me a good deal, because it was all nice, smooth yarn. I wondered if it could be possible to take a machine like that in the mill, under the working conditions there, and spin as good yarn as it was spinning there. That is, if you had 40 or 50 of those machines.

Mr. Gilliam: And if you had to sell the yarn to some other fellow?

Mr. D.: Yes, sir. We have had a great deal of trouble. We have averaged setting our rolls once a month.

Mr. Gilliam: I have had some experience with that, too.

Mr. D.: We may set the machine and have it all right for the cotton we have, but 30 days later we have to set it again.

Mr. Gilliam: How do you tell about that?

Mr. D.: Well, it makes cockled yarn.

Mr. Gilliam: You cannot sell that, can you?

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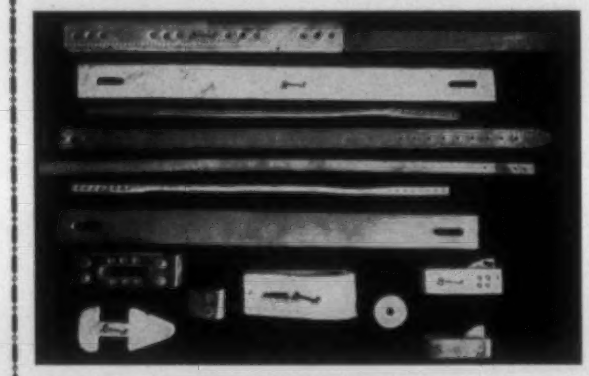

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Mr. D.: No, sir, nobody seems to want it. We make quite a bit of it, too, before we get those rolls set right. The flexibility of that machine appealed to me. It was using 1¾" cut rayon and 1-3/16" cotton and making nice, smooth yarn. It made me wish I had some long-draft machinery.

Mr. Gilliam: Would anybody else like to say anything about the spinning and winding at the show? Mr. A?

Mr. A.: I noticed two different makes of spinning frames, long draft. One of them, the type with two aprons, had a larger roller in this apron, and they claimed it gave more even pull, so as to eliminate what he called the temporary dwelling, and eliminate the cockled yarn. The other frame, that had the one apron, that formerly had a small roller in it, has discarded that smaller roller and now has one that looked to me to be 2½" around; and I think they make the same claim for that.

Mr. Gilliam: Is there anything else on spinning, winding, or warping? If not, I am going to let Mr. Miley take over the discussion now, because he has had more experience in weaving.

Mr. Miley: The only trouble with my taking over is that I did not go to the show. Did anyone see any improvements there in slashing, first?

Mr. P.: I saw stainless steel vats there and stainless steel boxes. I could not see any advantage, except that it is just a new vat. It looked as if it might help in keeping the side of the vat clean and keep the size from sticking to it. The shafts in the rolls were regular steel, just as in the brass rolls. I think one thing would still give trouble—the caustic or acid that eats the shaft through the stuffing box; I did not see any improvement on that. The thing that impressed me most about the box was that it was so pretty.

Chairman Miley: Don't you think stainless steel would probably last longer? Or do you? Has anyone any idea on that? Of course, it is harder; it would not wear as badly.

Mr. C.: Let me ask somebody that went down to Greenville if they were showing this year the same thing they had there last year at the show, which was a roll that was supposed to regulate the moisture content. Is there one of those at any of the mills represented here this morning? Is anybody actually using that moisture control?

Chairman: You mean to regulate the moisture in the slasher?

Mr. O.: Yes, sir, we are using that. The fellow that sold us the compound came along and had a moisture-control device with him. He put it up. He said it slowed the slasher down so it would leave only 8 per cent of moisture in the yarn.

Mr. Miley: You did not test it yourself?

Mr. O.: No, sir, they had the machine there; they brought it with them.

Chairman Miley: Did you follow it out to see if you found any improvement in the yarn?

Mr. O.: No, sir.

Chairman: Has anyone else had any experience with that? (No response.) I might say there is something similar to that which we have tried on the Sanforizing machine. The instrument did what they claimed for it; it did control the moisture content at the Sanforizing machine. We were unable to use it for other reasons. I see no reason why this would not do what they claim for it and control the moisture at the slasher.

That brings us to the weaving. Mr. H, what impressed you most?

Mr. H.: I tnink it was that little loom they had there. (Laughter.) Draper had that high-speed loom. Of course, we are running jacquards, and the jacquards determine our speed, and not the loom. There were some nice looms there, of different makes. They have a little bit more speed, and they are a little finer machines.

Chairman: I heard someone say he could not ever get close enough to that little loom to see it. I also heard something said about running a loom over 200 picks a minute.

Mr. Royal: There was a Model E loom there, rebuilt, that was running 204 picks a minute.

Chairman Miley: We have Model E looms and run them at the speed they are supposed to run, and we have quite a bit of breakage.

Mr. H.: Going back to the slasher, our machine carries a brass roll, and all the rest is stainless steel until you get to the dry ends. That is a high-speed slasher.

Mr. Miley: Is that for rayon?

Mr. H.: We run cotton on ours. We have one warp with 4,300 ends. We ran about 20 yards, I think, on the old conventional slasher. We put it on the new cylinder and ran 36 yards on the new.

Chairman Miley: Do you have a special size vat? Is it any larger?

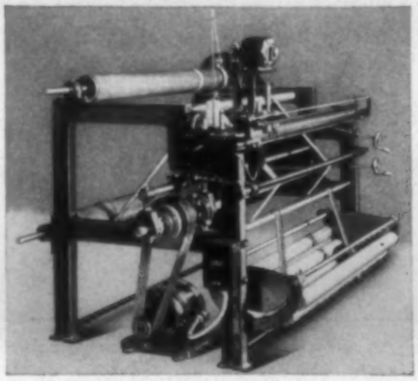
Mr. H.: No, sir.

Chairman: I was under the impression that with these high-speed slashers you have a special size vat, so that the yarn stays moist the same length of time, although it travels faster. Do you find yours satisfactory?

Mr. H.: Yes, sir. It does nice work. We have to be pretty careful about our warps, because when we make a warp that warp may be stored for six or eight months. We do excessive drying on our warps, because if we don't do that we may have mildew.

Chairman Miley: Going back to the Textile Exposition, has anyone else any comment on that Model E loom? Well, what about general improvements on looms? Did you see any general improvements on looms?

Mr. C.: Not speaking of the show, but from seeing the Draper circulars (Draper in particular because I happen to have Draper looms), the makers of looms are branching out and giving us more different types of looms to fit our particular needs. In almost any line you are making you can find a loom that is more suitable for that particular work than the loom made 15 years ago. If you made denim or made duck or made chambray 15 years ago you would probably have used the same loom for any of those things. It was a little too light for duck and a little bit heavy for chambray, and the denim manufacturer just cussed it anyway. But today you can find a loom for



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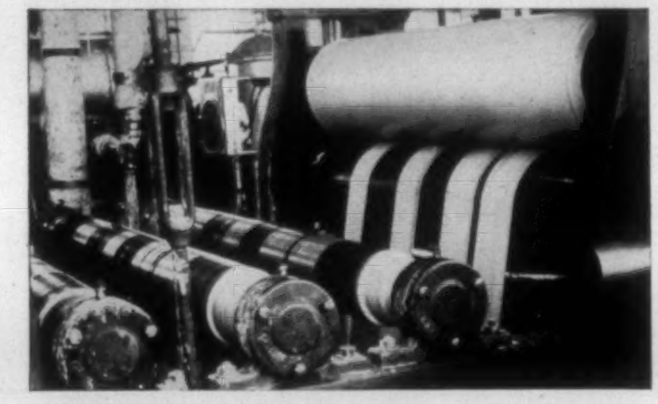

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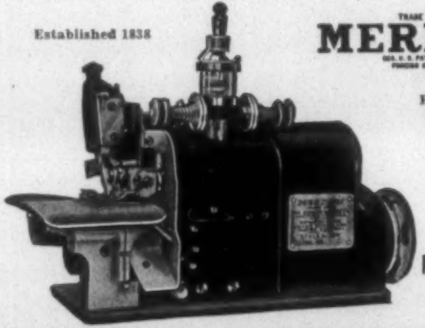

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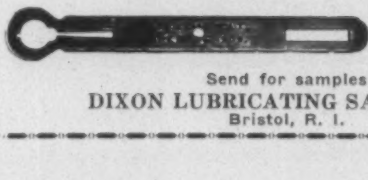

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Mr. Royal: Another thing about the looms is that they are using a whole lot more steel in the looms now, and malleable iron rather than cast iron, and putting more weight in them and more strength.

Chairman: Can anyone tell us the features of the new let-off down there? That might be interesting.

Is there anything else on the weaving?

Mr. Royal: There were some new devices to eliminate check straps.

Mr. Miley: Can you describe those?

Mr. Royal: No, sir. I saw them, but I cannot describe them.

Chairman: Did you see anything else at the show that might be of interest?

Mr. C.: At the last show (not this recent one) there was a lot of lighting that impressed me—the new fluorescent lighting. I hear that at the last show there was even a newer type, and I should like to hear something about that.

Mr. H.: If Mr. C will come over to our plant we will show him some of that.

Mr. C.: Do you have that throughout your plant?

Mr. H.: No, sir, but we have some on the slashing and some in the office and some in other places.

Mr. C.: Do you have a mixture of the two?

Mr. H.: Yes, sir. We also have a color-matching lamp.

Mr. Gilliam: What is the difference between the newer type of fluorescent and what we had before?

Mr. C.: Well, they have eliminated the shadow. When you moved your finger you could see the shadow. Now they have eliminated that. They also have better tubes. The tubes used to burn out so rapidly, but now they last longer.

Mr. Miley: We have a few fluorescent lights, especially on drawing-in frames, where they draw in colors. It is worth a whole lot there. Mr. C has some of that, too. I am interested in knowing whether anyone has a whole room or a department lighted in that way.

Mr. H.: No, sir, we have not.

Chairman: Is there anything more about the show? If not, are there any questions anyone wants to ask?

Mr. F.: I understand that there is some plant down in Georgia manufacturing loggerheads for the picker. It does have any tendency to stretch the lap, or, if it does, it stretches them all alike. Has anyone seen that?

Chairman: Has anyone any information on that? It seems not, Mr. F. Are there any other questions?

Mr. H.: I was interested in requilling and rewinding. All our filling is rewound at the plant.

Chairman Miley: Your advantage is that you spin on a larger package and then rewind?

Mr. H.: Yes, sir.

Chairman: You spin on a combination wind?

Mr. H.: Yes, sir.

Chairman: And then rewind?

Mr. H.: Yes, sir.

Chairman Miley: Do you find that is a paying proposition?

Mr. H.: Yes, sir. We can slub that yarn on the winder, you see, and then do not have slubs in the weaving. A lot of our stuff is for tablecloths, you see, etc., and one slub in there will ruin it. Our filling bobbin weighs .98 ounce on the spinning frame and on the winder it weighs about 1.45.

Chairman: You get right around 50 per cent increase?

Mr. H.: Yes, sir.

Chairman: That would bring down your transfers?

Mr. H.: Yes, sir, brings them away down.

Chairman Miley: It also cuts down your battery fillers, doesn't it?

Mr. H.: We do not have battery fillers.

Mr. Miley: The same principle holds; it would cut the work on the weaving?

Mr. H.: Yes, sir. We are using a number of different makes of machines.

Chairman: Are there any other questions? If not, I call now for the report of the nominating committee.

Mr. Marley: Mr. Chairman, your committee makes the following recommendations: Mr. George Gilliam, Chairman; Mr. D. E. Long, Oxford Cotton Mills, Oxford, for Vice-Chairman; Mr. V. E. McDowell, of the Rosemary Mfg. Co., Roanoke Rapids, Secretary; Mr. J. E. Shaw, of Roanoke Rapids, as member of the Executive Committee.

Chairman: Thank you, Mr. Marley. Gentlemen, you have heard the recommendations of the nominating committee. Are there any other nominations?

Mr. Parks: Mr. Chairman, I move that we accept the recommendations of the nominating committee in toto.

This motion received a second, on being put to vote, was carried.

Mr. Miley: Before we adjourn, I should like to express to you my appreciation of the honor I have had of being Chairman of this Eastern Carolina group for the past year and also thank you for the co-operation that I have had from all of you, and particularly from the other officers and from the executive committee. It is impossible to carry on this work and these discussions without a lot of co-operation, and I have certainly had it. I have had splendid support from the body as a whole and from the other officers, and I want you to know I appreciate it.

I turn the meeting over now to Mr. Gilliam, our new chairman.

Mr. Gilliam: It goes without saying that I appreciate the honor you have shown me, and I shall do my best. I shall continue to co-operate with Mr. Miley and with the executive committee, and I hope you will continue to support our efforts.

If there is nothing more to come up, we will now adjourn.

Whereupon the meeting adjourned at 11:50 o'clock A. M.

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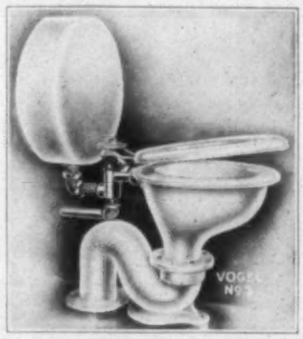

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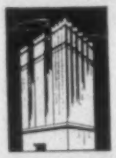

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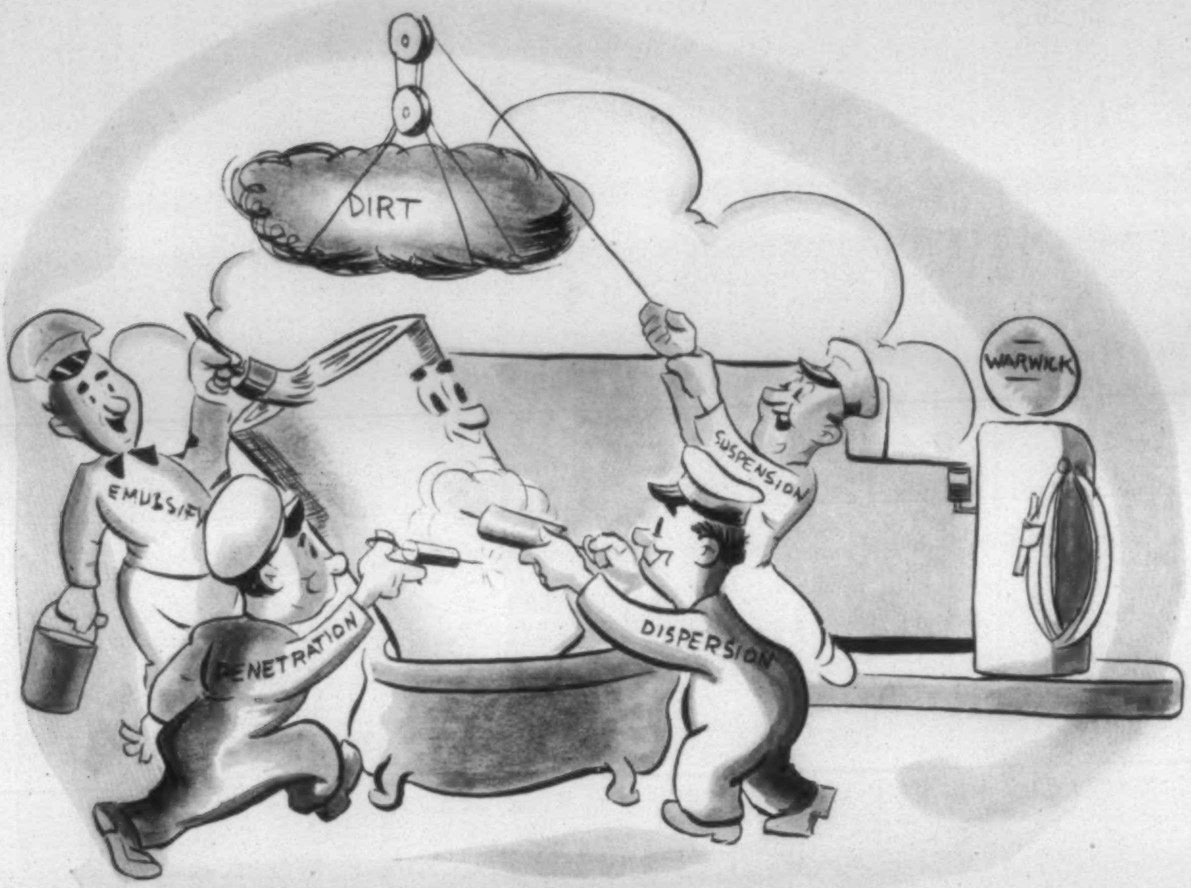

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